SPATIAL DEVELOPMENT FRAMEWORK

By 2030, eThekwini will be a socially equitable, environmentally sustainable, resilient and functionally efficient Municipality that bolsters its status as a gateway to Africa and the world".

Review 2016-2017






: FINAL REPORT MAY 2016

http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Pages/default.aspx

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EXECUTIVE SUMMARY

This document represents the revised 2016/17 eThekwini Spatial Development Framework (SDF) a summary of which is also included in the 2016/17 eThekwini Integrated Development Plan (IDP). Both the IDP and full SDF are submitted to the Department of Co-operative Governance and Traditional Affairs (DCOGTA) for simultaneous assessment. The adoption of this SDF is a legal requirement in terms of both the Municipal Systems Act (MSA), No. 32 of 2000 and the Spatial Planning and Land Use Management Act (SPLUMA) No. 16 of 2013 which came into effect in July 2015 and for which regulations for the SDF component are still being drafted.

This SDF is an integral component of the Integrated Development Plan (IDP); it both informs and translates the IDP spatially and guides how the implementation of the IDP should occur in space. The SDF therefore guides the desirable spatial distribution of land uses within a Municipality in order to give effect to the spatial vision, goals and objectives of the Municipality and prioritises areas for spatial interventions. This SDF is also aligned with provincial and municipal sector plans and strategies as a way of ensuring that the desired spatial form and outcomes of the Municipality are achieved both horizontally and vertically.

The first metropolitan Spatial Development Framework (SDF) was adopted in 1997. A review of the 1997 SDF was done in 2002. There have been tremendous changes in the Metro since the 2002 SDF was prepared, both institutionally and sectorally. Institutionally, the year 2000 saw the formation of a single unitary metropolitan local authority (eThekwini) responsible for the planning and development of the entire municipal area. Prior to this the metropolitan area comprised of numerous local authorities each responsible for planning and delivery in their own area of jurisdiction. A new Package of Plans for eThekwini subsequently emerged, with the Long Term Development Framework (setting out the city strategy and long term vision); the IDP (setting out the medium-term city development strategy, vision and goals) and SDF (providing spatial guidance to the IDP)) as the corporate strategy plans; and the Spatial Development Plans (SDPs) (detailed sub-metropolitan plans providing strategic multi-sectoral planning guidance for each planning region; Local Area Plans (LAPs); Functional Area Plans (FAPs), Special Projects and Schemes as the policy and planning implementation tools that translates the spatial intentions of the SDF). The Built Environment Performance Plan (BEPP) a requirement of National Treasury and elaborated on in Chapter 8, is also required to be adopted by Council at the same time as the IDP and SDF and is a pre-requisite for the receipt of performance based Integrated Cities Development Grant (ICDG) funding. The BEPP and ICDG funding, support and facilitate the integrated and spatially targeted implementation of the cities spatial priorities and catalytic projects and close the gap between the strategic policy intent of the IDP and SDF and the budgeting and implementation of catalytic projects.

As a strategic document, the SDF does not provide definitive statements on all aspects of spatial development in the Municipal Area. To obtain the necessary detail, it is advisable that this SDF be read in conjunction with other sector and spatial plans. Most importantly the SDF must be read in conjunction with the Council approved Package of Plans (Spatial Development Plans (SDPs), Local Area Plans (LAPs), Functional Area Plans or Special Projects) as these translate the strategic and spatial intentions of the IDP and SDF into detailed and cadastrally based land use and implementation plans and facilitate the translation into Schemes. The Package of Plans are explained in detail in Chapter 1 Section 1.4 and Chapter 7 Section

7.2 and Annexure 2 of this report. The detailed spatial plans can also be viewed or downloaded from the Council's website:
http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Pages/default.aspx

The 2016/2017 SDF Review Process

The approach that has been used in preparing this SDF Review (2016/2017) complies with the Municipal Planning and Performance Management Regulations of 2001 and is working towards full compliance with the Spatial Planning and Land Use Management Act (SPLUMA) No. 16 of 2013. The drafting of this SDF Review also adhered to the Guidelines for the Development of Spatial Development Frameworks, introduced by the Department of Rural Development and Land Reform as well as the COGTA Spatial Planning Guidelines. The approach used in this review was as follows:

a) Development of a process plan

The 2016/2017 SDF Review Process Plan was developed in conjunction with the IDP Process Plan. The process plan established a firm foundation for the alignment of the IDP, SDF and Budget. As such an all-encompassing process plan was prepared and adopted by the Council to ensure the proper and collective management of the IDP, SDF and Budget allocation process and ensure the submission of the Final SDF to COGTA by June 2016.

b) Desktop Review

The SDF attempts to align with the national, provincial and municipality's strategic plans, as well as those of neighbouring municipalities and employs these to inform appropriate responses to our local spatial development challenges. Documents that were reviewed as part of this process could be categorised as follows:

- Key national spatial development policies and programmes, e.g. National Development Plan, Strategic Infrastructure Plans, Integrated Urban Development Framework, National Spatial Development Strategy, Breaking New Ground, Comprehensive Rural Development Programme, Integrated Cities Development Grant, State of the Nation Address indicating National Priorities etc.
- KZN strategic spatial plans including the Provincial Growth and Development Strategy (PGDS), development programmes as implemented by different government departments, State of the Province Address indicating provincial priorities; etc.
- EThekwini Municipality's Long Term Development Framework, IDP, SDF, Sector Plans and Built Environment Performance Plans (BEPP).
- The IDP's and SDF's of neighbouring municipalities
- Research reports and papers dealing with spatial planning and environmental management locally, nationally and internationally.

c) Spatial Planning and Sector Plan Updates and Reviews

- This SDF is revised based on updated spatial planning and sector information. Addressing changes within these plans involved reviewing and updating the status quo as well as proposals as a way of ensuring alignment with the current SDF.

- In addition, reference is made to the current status, challenges and opportunities arising from the proposed re-demarcation process.

d) The Use of GIS and mapping improvements

- The eThekwini Municipality is constantly striving to make mapping improvements and to this end the municipality has completed a separate GIS mapping project to standardise the mapping topology and to simplify and improve mapping legibility.

e) Addressing the MEC for COGTA's Comments on the Final SDF Review 2015/16

Each year COGTA assess the SDF to determine compliance with the following criteria:

- Submission of the SDF: Seeks to establish whether a complete SDF was submitted as required in terms of the MSA
- Legal compliance: Seeks to establish the level of compliance with the 16 legal issues that should be addressed in a credible SDF.
- Vision and spatial restructuring components: Seeks to establish the strategic focus of the SDF and its alignment with the long term development strategy as outlined in the IDP.
- Budget alignment: Seeks to establish alignment of the SDF with the budget through the capital investment framework.
- Policy Alignment: Alignment with national and provincial spatial policy and guidelines.

The objective of the assessment is:

- To establish the credibility and completeness of each SDF;
- To assist municipalities to strengthen the legal compliance of the SDF's across province;
- To assist the municipalities to improve the integration of budgeting and strategic planning processes through the SDF (Capital Investment Framework);
- To improve SDF's in order to appropriately inform the introduction of wall-to-wall Schemes;
- To engage with District Municipalities and Local Municipalities in order to improve the strategic focus of the SDF's; and
- To identify Municipalities that require direct support with the development of their SDF's where appropriate.

The COGTA assessment of the SDF Review 2015/2016 (Final Report, May 2015) has been summarised as follows:

- The eThekwini SDF's focus on the built environment indicates an urban bias and is too technical in its approach. A shift to rural development is required in the next review with formalisation serving as a key priority that is to be guided by a strategic approach.

- The amalgamation with Vulamehlo needs attention and the spatial implications of this merger need to be represented alongside the cross-border strategies that will come into effect to make this a smooth process with Vulamehlo Municipality.

- Coastal Management Planning to be developed and refined by way of appropriate studies and strategic measures and the fragmented Environmental Plans that the municipality has developed need a holistic approach with clear outcomes. The proposed Strategic Environmental Assessment serves as the ideal collective framework as well as a means to address the environmental impacts of the various IDP and SDF strategies. The development of the SEA is to be prioritised and guided by the 'Safe Operating Space' study that was undertaken by the municipality. In this regard the offer from the provincial Department of Economic Development, Tourism and Environmental Affairs (EDTEA) to finance the development of an EMF for the Metro should be considered as a matter of urgency.

- Areas of attention in the next SDF review to include the Status Quo, action plans on remedial matters, identification of Environmental Management Zones and opportunities for development.

- Stewardship sites and local municipal areas to be considered for conservation value in line with the development of an Environmental Management Framework.

- An Agricultural Sector Plan is required to address the agricultural aspects, opportunities and protect high potential land and in this regard 2015 agricultural data is to be used. Additionally, KZN DARD Land Categories Dataset and Draft Policy Guidelines (2013 and/or 2015 or the most recently updated data) is to be incorporated into IDP and SDF in the next review. The Agricultural Sector Plan must be developed, in collaboration with KZN DARD, and should include:
 - a vision for agriculture in the municipality, in which
 - high value agricultural land is identified, prioritized and protected from non-productive land uses.
 - The sector plan must also contain
 - goals;
 - develop guidelines for current and desired agricultural development and land use management,
 - optimization strategies,
 - value-adding opportunities and improved production systems or interventions for prioritized areas which will unleash agricultural potential.
 - Areas must be identified where more detailed local plans need to be developed, site-specific soil and vegetation surveys may need to be conducted for specific projects.
 - Strategic assessment of the agricultural resources via a full agricultural SWOT analysis must be undertaken.
 - The municipality must provide a copy of the Agricultural Sector Plan to KZN DARD regional or local Extension office for comment and the Macro-planning component (Head Office Cedara).

- Disaster Management needs refinement with the risk assessment needing to be mapped in the SDF and the prioritisation of a Disaster Management Plan in line with the next major SDF review.

- Land Reform needs to be addressed by way of relevant progress sourcing studies and a spatial depiction of the gathered data.

- The SPLUMA Process Plan is to be adhered to and SPLUMA compliance needs to be achieved in the 2016/17 SDF.

- The mapping of the MTEF considers the past and present projects but fails to depict the future projects which hinder the analysis of the municipality's spatial form and intended path of growth. The comprehensive mapping of the MTEF and CIF is required in the next SDF review.

- A focus on the wall-to-wall Scheme is to be prioritised in order to consolidate the various municipal schemes and facilitate the development of rural schemes on both state-owned and Ingonyama Trust land.

- The municipality is to follow through on its commitment made to the SDF review in 2016-2017 to realign to National, Provincial and SP Guidelines and Modules.

- Cross border planning and cross border alignment across all neighbouring municipalities is to be refined by way of the drafting of plans to facilitate cross-border initiative and a closer focus being paid to provincial projects such as SIP2 which affects several KZN municipalities including eThekwini.

- The municipality is to ensure that the Housing Sector Plan addresses all housing locations, types and spatial reflections mentioned in the SDF and IDP in future reviews. The lack of spatial representation of different types of housing subsidies in relation to each other and in relation to other developments in the municipality is to be addressed accordingly in the next review.

- The municipality has not finalised the Disaster Management Plan but has submitted a Disaster Management Sector Plan. The municipality provided sufficient disaster management information integration and needs to finalise their disaster risk profile and develop risk profile maps. A key priority is to ensure the finalisation of the development of the Disaster Management Plan.

- The fine scale identification and mapping of environmentally sensitive areas within the eThekwini area through the D'MOSS plan is supported. The use of the D'MOSS for the protection of a network of biodiversity, ecosystem services, ecological infrastructure and natural capital within the eThekwini area is further supported.

- eThekwini Municipality is encouraged to continue with the funding and budgeting for the continued protection of the D'MOSS network and the implementation of the ecologically required burn programmes, alien clearing and forest regeneration programmes which support the D'MOSS.

<u>In response to the MEC comments above it should be noted that:</u>

- The rural development strategy once finalised will guide the implementation of key projects in the rural areas, including the formalisation of towns and will be taken into consideration in identifying the city's spatial priorities. The Formalisation of Umbumbulu is underway and the formalisation of Adams/Folweni has been initiated.

- A Ward profiling project for the newly demarcated areas in Vulamehlo is to be commissioned by COGTA and once complete will inform the revised SDF.

- Substantial information on Coastal Planning and Management and Disaster Management has been included as an Annexure in this review.

- The SEA has been initiated and additional environmental mapping showing stewardship areas and land ownership under D'MOSS have been included in this report.

- Bilateral meetings have been held with DARD and relevant municipal departments to clarify and discuss the need for an Agricultural Sector Plan. Steps are being taken to identify a "City Champion" to drive this process. DARD acknowledges that the SDF does make reference to the KZN DARD Land Categories Dataset and Draft Policy Guidelines but the IDP does not and this needs to be correctly reflected in the COGTA comments. On-going meetings with DARD to address their concerns regarding land use applications and protection of agricultural resources are being arranged with the appropriate departments.

- Both new and settled land claims within the eThekwini Municipality have now been mapped but there is no indication of the timeframe in which these new claims will be resolved.

- The City continues to work towards full SPLUMA compliance. The status of SPLUMA readiness in the City is highlighted in the report in Chapter 1 and Annexure 5.

- Mapping of the MTEF past and future capital expenditure was undertaken for the 13/14 – 15/16 financial years and reflected in the past two SDF's. The first spatial mapping of the budget applied filters to the capture of the budget so that it reflected only those projects that contributed towards city building and excluded projects that were not spatially referenced or of limited spatial significance (eg pavements). Further mapping of the MTEF has recently been completed for the 2016/2017-2018/2019 and Chapter 8 of this report has been updated accordingly.

- Cross border engagement and coordinated planning is ongoing. This is achieved through various fora namely meetings with neighbouring municipalities, the SIP process, Aerotropolis Planning process, re-demarcation readiness process and mapping by the Municipality of the proposed land uses and linkages of the neighbouring districts.

- The Housing Sector information has been expanded to comply with the SPLUMA requirements where possible. It should be noted that the Human Settlements Department has no involvement in the high to middle income housing sector and therefore has no data on demand / supply within this segment of the market nor is required to have any strategy to intervene in this segment of the market as it falls within the domain of the private sector. They are however, considering expanding the scope of their work and are undertaking a policy review process taking this into consideration. There is also no national policy on Inclusionary Housing to guide a municipal response as required in SPLUMA. Such gaps in the national policy, city mandate and available data will hinder the city's ability to provide a comprehensive response and achieve full SPLUMA compliance, however much progress has been achieved in this regard.

A detailed response to the MEC COGTA comments can be found under Annexure 10 of this report.

f) The Public Participation Process

Participation is an important component of the IDP and SDF process. The comments raised in the consultation process undertaken from 26 February to 26 April 2016 has been collated and incorporated into the Final SDF Review 2016/17 and will be submitted to Council in May 2016 and then COGTA in June 2016. The public participation process followed in the SDF Review is detailed in Annexure 4 of the final report.

The limitations of this SDF are identified as follows:

The Local Government: Municipal Planning and Performance Management Regulations (2001) require that SDF's must contain a strategic assessment of the environmental impact of the spatial development framework. The eThekwini Municipality has initiated a 'Safe Operating Space' study for the city in order to better understand the environmental thresholds which define the "safe operating spaces". It is anticipated that the output of the study will be a combination of spatial data and a decision-making framework which together will provide the structure needed to assess the environmental sustainability of the city's spatial plans. The proposed 'Safe Operating Space' study will provide a critical starting point for the municipality to undertake a SEA.

The SDF presents a long term vision of the desired spatial form of a Municipality, and thus is a critical informant for bulk infrastructure planning which normally has a 5-20 year planning horizon. As such the SDF is indicative of a preferred development scenario against which there is still a need for more detailed investigations of the cost implications and capacity requirements for the provision of bulk infrastructure. To this end the IDP and SDF have informed the Built Environment Performance Plan 16/17 in an effort to further integrate spatial priorities and bulk infrastructure resource allocations.

The way forward: towards a major SDF review

Programmes and projects that will feed into the major review of the SDF:

a) Densification and Transit Oriented Development Strategies

The implementation of the Densification Strategy and Public Transport Corridor Plans (through pilot projects and catalytic projects) and undertaking further baseline studies to monitor densification trends across the city, will contribute towards achieving a more spatially efficient, integrated and compact spatial form.

b) Managing the urban and rural transition around the Urban Development Line / Urban Edge

There is a need to outline the urban rural interface and define the type of development, densities and the service levels and standards that will apply as a way of sustainably managing the rural / traditional and transitional peri-urban areas. This process may lead to the review of the UDL and ultimately the review of the SDF. It is anticipated that this review will be undertaken as part of the next major review of the SDF.

c) Service/Infrastructure Delivery and Phasing Line

In the context of the constrained resources and existing infrastructure capacity limitations it is important to establish upfront the availability of excess infrastructure capacity and the areas in which development opportunities can be provided in the short term while new infrastructure is being built. Infrastructure to new areas will need to be carefully assessed and phased within the context of whether they are cost effective, sustainable, and in the best interest of the Municipality. A study addressing the phasing of services to new areas has been undertaken by the Water and Sanitation Department. The service/infrastructure phasing line will assist in the articulation of a phased development approach for the SDF as well as identification of realistic programmes and help prioritise the implementation of projects.

d) Implementation of the Durban Climate Change Strategy (DCCS)

In acknowledgement of the need for Durban and all of its residents, from big industry to the poorest communities, to prepare for the impacts of climate change, the eThekwini Municipality engaged in an inclusive participatory process to develop a combined mitigation and adaptation climate change strategy for Durban. The development of this strategy has been completed and was approved by the Council during June 2015.

The DCCS covers 10 themes: water, sea level rise, biodiversity, food security, transport, energy, waste and pollution, and health. In addition it covers economic development as well as knowledge generation and understanding as cross-cutting fields.

The DCCS will have important implications for the SDF that is indicated in this document and will be detailed once the DCCS Implementation Plans have been drafted.

e) Municipal Adaptation Plans

In order to improve the effectiveness of climate change adaptation planning, sector specific municipal adaptation plans have been developed for three priority high risk sectors: Health, Water and Disaster Management. These plans have been accepted by sector representatives and by the Council. The Water sector, in particular, has engaged enthusiastically with the plans since 2010. The Municipal Adaptation Plans have undergone a Benefit-Cost Analysis by a team of resource economist experts, with the aim of prioritising the Municipality's adaptation options on the basis of economic efficiency and the benefit to people, while being cognisant of governance and capacity issues that might facilitate or hinder the implementation of the interventions. This Benefit-Costs Analysis has resulted in a consolidation of the original 47 Municipal Adaptation Clusters into a reduced set of 16 Municipal Adaptation Clusters, which is greatly easing the implementation and tracking of the interventions.

f) Urban Resilience Strategy

The eThekwini Municipality's leadership role in the climate change adaptation arena at both a local and global level has also positioned the city well to advance its thinking and action around the increasingly important concept of 'urban resilience'. 'Resilience' is the ability of a system, entity, community or person to withstand shocks while still maintaining its essential functions, and recovering effectively to a state better prepared to cope with both extreme and slow onset events. These shocks and stresses could be

environmental (e.g. climate change) or socio-economic (e.g. local and global economic meltdowns, persistent poverty and unemployment etc). Building resilience is therefore about making people, communities, infrastructure and ecosystems better prepared to withstand catastrophic events – both natural and manmade – and about planning in new and innovative ways in order to bounce back more quickly and more strongly. In December 2013, Durban was selected as one of the first cohort of 33 cities to be inaugurated into the Rockefeller Foundation's 100 Resilient Cities Centennial Challenge. This programme aims to build urban resilience in cities around the world by providing relevant technical and financial support for the development of a 'Resilience Strategy' in each of the selected cities. EThekwini's involvement in the 100 Resilient Cities Programme will help to better coordinate resilience-building initiatives across the municipality and to contribute to the resilience agenda at both a local and global level.

The municipality's spatial planning is a critical contributor to the city's resilience and will contribute to, and be influenced by, the Resilience Strategy that is produced as part of this programme.

g) Built Environment Performance Plan 2016/17-18/19 and Integrated City Development Grant

The Integrated City Development Grant (ICDG) provides incentives for participating municipalities to identify and establish integration zones within cities, including the establishment of measureable performance objectives, indicators and targets. The objective of the ICDG is to support the development of more inclusive, livable, productive and sustainable urban built environments in metropolitan municipalities. The grant provides a financial incentive for metropolitan municipalities to integrate and focus their use of available infrastructure investment and regulatory instruments to achieve a more compact urban spatial form. The eThekwini Municipality, as a recipient of the Integrated Cities Development Grant (ICDG) has identified a number of integration zones across the municipal area within which to spatially target investments. Through the preparation of the Built Environment Performance Plan, the municipality must highlight the financial and other strategies for investment in the integration zones and catalytic projects. Further details regarding the Built Environment Performance Plan and Integration Zones can be found in Chapter 8 of this report.

DEFINITION OF SPATIAL TOOLS AND CONCEPTS

SPATIAL TERM	DEFINITION
Nodes	Nodes are areas where a higher intensity of land uses and activities are supported and promoted. Typically any given municipal area would accommodate a hierarchy of nodes that indicates the relative intensity of development anticipated for the various nodes, their varying sizes, and their dominant nature.
Corridors	Corridors are links between nodes, along which an increased intensity of development may be encouraged. Corridors provide efficient access to a higher level of economic and social opportunities than would generally be the case in less structured space or where activities are dispersed. They typically include public transport routes.
Densification	Densification refers to an increase in density. Density is defined as the number of units per hectare or number of people per hectare and is achieved through the increased use of space both horizontally and vertically within existing areas / properties and new developments. Densification is a measure of the compactness of cities and is the hallmark of a qualitative urban environment which supports efficient and cost effective service delivery with good access to public transport and social and economic opportunities
Efficiency	Development that maximises development goals such as sustainability, integration, accessibility, affordability, and quality of living, relative to financial, environmental, and social costs, including ongoing and future costs
Infill development	Development of vacant or under-utilised land within existing settlements in order to optimise the use of infrastructure, increase urban densities and promote integration
Integrated development plan	A 5 year strategic municipal development plan, reviewed on an annual basis, required by the MSA (Act 32 of 2000) which guides municipal decisions and budgets
Mobility Routes	These are routes of national significance that connect the Municipality at a national and provincial scale. Examples of these routes include the N2 and N3.
Sector Plans	Sector Plans are municipal plans for different functions such as bio-diversity conservation, housing, transport, local economic development and disaster management. They may also be geographically based, for example a sub-region, settlement within a local Municipality or a component of a settlement
Urban Sprawl	Urban Sprawl is the expansion of urban areas across the landscape and the conversion of forested, wetland and agricultural areas to urban areas. Urban sprawl includes the expansion of major roadways, not just housing and commercial areas. It is usually associated with increased private car usage, water and air pollution, under utilisation of infrastructure and land use segregation.
Urban Core	The urban core consists of the inner core areas of the Municipality including the traditional CBD area and surrounds. The planning within the urban core mainly focuses on redevelopment and regeneration where land uses are unlikely to change significantly but will increase densities and provide more residential opportunities
Urban Development Line (UDL)	The SDF uses the term Urban Development Line and not Urban Edge or Development Edge. The UDL is a line demarcating the extent to which urban development will be permitted to be established within an urban development corridor or urban node. It is a line that will promote efficient, equitable and sustainable settlement form. The line indicates the outer limit of urban development within a corridor or node. The UDL implies that there is a rural hinterland different in character and servicing needs, and which supports different lifestyles and densities.
Development Services Line / Phasing Line	The Development Services Line is a line located within the urban development corridor or node indicating the limit to infrastructure availability and capacity. This line may coincide with the UDL or may fall within the UDL boundary. The metropolitan area may have a number of development services phasing lines related to future servicing capacity and infrastructure indicating where and when future development can be serviced.
Integration Zones / Urban Network	Integration Zones are sub-metropolitan areas where opportunities exist for public intervention to promote more inclusive, efficient and sustainable forms of urban development. They the focus of the National Treasury's spatial targeting initiative is the identification of the CDD, townships, other townships, and the connections between these three types of spaces or elements and an integration Zone. The entire system is termed the Urban Network.

ACRONYMS AND ABBREVIATIONS

ABM	:	Area Based Management
ASGISA	:	Accelerated and Shared Growth Initiative for South Africa
BoP	:	Back of Port
CMPR	:	Central Municipal Planning Region
CSIR	:	Council for Scientific and Industrial Research
CIF	:	Capital Investment Framework
DCOGTA	:	Department of Cooperative Governance and Traditional Affairs
DFA	:	Development Facilitation Act
D'MOSS	:	Durban Metropolitan Open Space System
DSW	:	Durban Solid Waste
DTP	:	Dube Trade Port
DWA	:	Department of Water Affairs
EDS	:	Economic Development Strategy
EBA	:	Ecosystem-based adaptation
EGS	:	Ecosystem Goods and Services
EM	:	EThekwini Municipality
EMA	:	EThekwini Municipal Area
EMF	:	Environmental Management Framework
ETA	:	EThekwini Transport Authority
EWS	:	EThekwini Water Services
FAP	:	Functional Area Plans
FAR	:	Floor Area Ratio
HDA	:	Housing Development Agency
IRPTN	:	Integrated Rapid Public Transport Network
HPPTN	:	High Priority Public Transport Network
ICDG	:	Integrated Cities Development Grant
ICT	:	Information and Communications Technology
IDP	:	Integrated Development Plan
INK	:	Inanda Ntuzuma KwaMashu
IZ	:	Integration Zone
KSIA	:	King Shaka International Airport
KZN	:	KwaZulu-Natal
KZNPGDS	:	KwaZulu-Natal Provincial Growth and Development Strategy
LED	:	Local Economic Development
LEFTEA	:	Less Formal Township Establishment Act
LUF	:	Land Use Framework
LUMS	:	Land Use Management System
MSA	:	Municipal System Act
MCPP	:	Municipal Climate Protection Programme
MFMA	:	Municipal Financial Management Act
MTREF	:	Medium Term Revenue and Expenditure Framework
NDP	:	National Development Plan
NEMA	:	National Environmental Management Act
NHRA	:	National Heritage Resource Act
NMT	:	Non-Motorized Transport
NMPR	:	Northern Municipal Planning Region
NPC	:	National Planning Commission
NSDP	:	National Spatial Development Perspective
SOE's	:	State Owned Entities
SDF	:	Spatial Development Framework
SDP	:	Spatial Development Plan
SMME's	:	Small, micro and medium enterprises
SMPR	:	Southern Municipal Planning Region
UDL	:	Urban Development Line
UE	:	Urban Edge
UNS	:	Urban Network System
WMPR	:	Western Municipal Planning Region

CHAPTER 1

INTRODUCTION TO THE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Synopsis: Chapter 1 of this document outlines the purpose and role of the SDF by linking it to the legal and policy directives that informs the SDF. This chapter also outlines the planning approach adopted by the eThekwini Municipality in the preparation of this SDF and its translation to a Land Use Scheme.

1. INTRODUCTION: THE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

The Municipal Systems Act, Act No. 32 of 2000 (MSA) requires that each Municipality prepare an Integrated Development Plan (IDP) and Spatial Development Framework to serve as a tool for transforming local governments towards facilitation and management of development within their areas of jurisdiction. In accordance with Section 26 (e) of the Local Government: Municipal Systems Act, No. 32 of 2000, the eThekwini Municipality has prepared and annually reviewed its Spatial Development Frameworks since 2002.

This SDF Review also seeks to comply with the new Spatial Planning and Land Use Management Act, No. 16 of 2013 (hereafter SPLUMA) which came into effect in July 2015.

The eThekwini Municipality's SDF serves as a strategic spatial framework that guides the desired spatial distribution of land uses, spatial priorities and strategic infrastructure provision within a Municipality in order to give effect to the vision, goals and objectives of the municipal IDP. The Municipality's SDF represents a long term (20+ years) vision and plan and provides a long term spatial planning context for the IDP which is revised in 5 year cycles. The annual and 5 year SDF review process allows the SDF to be updated and adjusted according to changing trends and circumstances.

1.1 Role and Purpose of the SDF

The SDF is the primary spatial response to the development context, needs and development vision of the municipality. It is a key land use management tool which informs strategic choices and interventions especially regarding the future growth and development of the Municipality and has an important role to play in guiding and managing Municipal decisions relating to the use, development and planning of land. It is a legislative requirement and should resonate with the national and provincial spatial development plans and priorities.

The SDF is also a transformation tool. With its focus on spatial restructuring, it guides the location of future development in a manner that addresses the imbalances of the past. It enables the municipality to manage its land resources in a developmental and sustainable manner. It provides an analysis of the spatial needs and issues and provides strategies and programs to address these challenges. In summary, the SDF has the following benefits:

- It facilitates effective use of scarce land resources.
- It facilitates decision making with regard to the location of service delivery projects.
- It guides public and private sector investment.
- It strengthens democracy, inclusivity and spatial transformation
- It promotes intergovernmental coordination on spatial issues.
- It serves as a framework for the development of lower order plans and Scheme and is the basis for land development decisions
- It guides and informs the spatial location of municipal infrastructure investment and spatial priorities;
- Provides visual representation of the desired urban form of the municipality in the short, medium and long term.

Ultimately, the SDF and accompanying Package of Plans, defines and facilitates a progressive move towards the attainment of an agreed upon desired spatial form within the municipality's area of jurisdiction.

1.2 Policy and Legislative Context

Since the mid-1990s, spatial planning has become an integral part of development aimed at redressing the imbalances of the past in South Africa. Municipalities have given effect to the spatial planning mandate through Chapter 5 of the Municipal Systems Act, (MSA) Act No. 32 of 2000 which provides for the preparation of SDF's as a core component of the IDP and now more recently, through Chapter 4, Part A, Sub-section 12 of SPLUMA, Act No. 16 of 2013

SPLUMA seeks to promote consistency and uniformity in decision-making and procedures as well as promoting policy and budgetary alignment between all spheres of government. Accordingly, SPLUMA requires national, provincial and municipal spheres of government to prepare their own and participate in the preparation of other Spatial Development Frameworks (SDF's) in order to facilitate greater convergence and alignment between the planning and budgeting processes across all spheres of government.

SPLUMA requires national, provincial and municipal spheres of government to prepare Spatial Development Frameworks that, *inter alia,* establish a clear long term vision, guide planning and development decisions across all sectors, provide clear and accessible information, address inclusion and integration of all areas into the social, economic and environmental objectives of the relevant sphere of government, identify risks of particular spatial patterns, indicate priority areas and provide direction for strategic development, infrastructure investment , undertake and consider substantial public engagement and ensure plans and programmes of all spheres of government are coordinated and aligned. In addition, Spatial Development Frameworks must outline specific arrangements for prioritising, mobilizing, sequencing and implementing public and private infrastructural and land development investment in the priority spatial structuring areas identified in the spatial development frameworks.

Chapter 2 Subsection 7(a)-(e) of SPLUMA requires that all SDF's give effect to the following development principles including:

a) Spatial Justice; - past spatial and other development imbalances must be redressed through improved access to and use of land
b) Spatial Sustainability; - promote land development that is within the fiscal, institutional and administrative means of government, give special consideration to the protection of prime agricultural land, uphold land use measures in accordance with environmental management instruments, promote land development in sustainable locations and limit urban sprawl, consider all current and future costs to all parties in the provision of infrastructure and social services to ensure the creation of viable communities
c) Efficiency; optimise the use of existing resources and infrastructure
d) Spatial Resilience; - flexibility in spatial plans and land use management systems are accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks, and

e) Good Administration – all spheres of government must ensure an integrated approach to land use and land development, all departments must provide their sector input and comply with the prescribed requirements and follow a transparent public process.

Part E Section 21 SPLUMA, Act 16 0f 2013 also stipulates that:-

21. A Municipal spatial development framework must –

(a) give effect to the development principals and applicable norms and standards set out in Chapter 2;

(b) include a written and spatial representation of a five year spatial development plan for the spatial form of the municipality ;

(c) include a longer term spatial development vision statement for the municipality area which indicates a desired spatial growth and development pattern for the next 10 to 20 years;

(d) identify current and future significant structuring and restructuring elements of the spatial form of the municipality, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated ;

(e) include population growth estimates for the next five years;

(f) include estimates of the demand for housing units across different socio-economic categories and the planned location and density of future housing developments;

(g) include estimates of economic activity and employment trends and locations in the municipal area for the next five years;

(h) identify, quantify and provide location requirements of engineering infrastructure and services provision for existing and future development needs for the five years;

(i) identify the designated areas where a national or provincial inclusionary housing policy may be applicable ;

(j) include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where applicable;

(k) identify the designation of areas in the municipality where incremental upgrading approaches to development and regulation will be applicable;

(l) identify the designation of areas in which –

 (i) more detailed local plans must be developed; and

 (ii) shortened land use development procedures may be applicable and land use schemes may be so amended;

(m) provide the spatial expression of the coordination, alignment and integration of sectoral policies of all municipal departments;

(n) determine a capital expenditure framework for the municipality's development programmes, depicted spatially;

(o) determine the purpose, desired impact and structure of the land use management scheme to apply in that municipal area; and

(p) include an implementation plan comprising of –

 (i) sectoral requirements, including budgets and resources for implementation;

 (ii) necessary amendments to a land use scheme;

 (iii) specification of institutional arrangements necessary for implementation ;

 (iv) specification of implementation targets, including dates and monitoring indicators; and

(v) specification, where necessary, of any arrangements for partnerships in the implementation process

It should be further noted that in terms of section
22(1), a Municipal Planning Tribunal or any other authority required or mandated to make a land development decision in terms of this Act or any other law relating to land development, may not make a decision which is inconsistent with a municipal spatial development framework.

However, Section 22(2), subject to Section 42, does make provision for a Municipal Planning Tribunal or any other authority required or mandated to make a land development decision, to depart from the provision of a municipal spatial development framework only if site–specific circumstances justify a departure from the provision of such municipal spatial development framework.

Furthermore, Section 22(3) provides that where a provincial spatial framework is inconsistent with a municipal spatial framework, the Premier must, in accordance with the Intergovernmental relations Framework Act, take the necessary steps, including the provision of technical assistance, to support the revisions of those spatial development frameworks in order to ensure consistency between the two.

it is critical therefore, that in the process of preparing a SPLUMA compliant municipal spatial development framework (MSDF), that there is both vertical and horizontal alignment between key sectors and all spheres of government.

The Municipality is currently working towards achieving full SPLUMA compliance.

1.2.1 Key National Spatial Planning Policy

The National Planning Commission has developed a National Development Plan which focuses on enabling sustainable and inclusive development. The objectives include the need for a strong and efficient planning system integrated across the spheres of government. The plan seeks to eliminate poverty and reduce inequality by providing South Africans with a secure foundation from which they can expand their capabilities and improve their life opportunities Some directives towards achieving this include : -

- *developing people's capabilities to be able to improve their lives through education and skill development, health care, better access to public transport, jobs, social protection, rising incomes, housing and basic services and safe communities. One of the critical actions identified in this plan is the need for "New Spatial Norms and Standards – densifying cities, improving transport, locating jobs where people live, upgrading informal settlements and fixing housing market gaps (NDP Vision for 2030).*

The National Development Plan (NDP) introduces the long-term vision for the future development of South Africa. It acknowledges the spatial inefficiencies that characterizes existing settlements and commits the national government to developing a National Spatial Framework. It also identifies the need to activate rural economies through the stimulation of small-scale agriculture, tourism and mining investments (NDP 2011: 117).

National policy on spatial planning currently focuses on the rationalization of a fragmented system of land use and related laws. The current fragmented spatial pattern of human settlement and the associated urban sprawl is a direct consequence of the skewed and inappropriate planning legislation of the past.

The national government has gazetted the Spatial Planning and Land Use Management Act, 2013 (SPLUMA, Act No. 16 of 2013), as a means of providing an enabling law on spatial planning, land use management and land development. The new law will prevail over provincially applicable planning laws. It will lay down national policy, norms and standards as well as frameworks on land use, and therefore fall within the ambit of Section 146 of the Constitution. At a local level, it provides a new framework for the preparation of area specific SDFs and Schemes.

The government has identified 10 priority areas in its programme of action, with an intention to turn around the global economic slowdown, whilst at the same time ensuring that the needs of all its citizens are met. The priority areas developed are intended to do the following:

1. Speed up economic growth and transform the economy to create decent work and sustainable livelihoods;
2. Introduce a massive programme to build economic and social infrastructure;
3. Develop and implement a comprehensive rural development strategy linked to land and agrarian reform and food security;
4. Strengthen the skills and human resource base;
5. Improve the health profile of all South Africans;
6. Intensify the fight against crime and corruption;
7. Build cohesive, caring and sustainable communities;
8. Pursue African advancement and enhanced international cooperation;
9. Ensure sustainable resource management and use;
10. Build a developmental state, improve public service and strengthen democratic institutions.

The National Government is now implementing a number of sector based development programmes with serious implications for spatial planning at a local level and this includes the introduction of a Comprehensive Rural Development Programme (CRDP) which seeks to create vibrant, equitable and sustainable rural communities through a three-pronged strategy based on:

- a coordinated and integrated broad-based agrarian transformation;
- strategically increasing rural development; and
- an improved land reform programme.

The eThekwini Municipality embraces the principles of the CRDP and strives towards the attainment of its vision as part of its spatial and development planning program. This includes the identification of target areas for rural development, ensuring that rural areas and peri-urban areas are clearly defined and ensuring developmental outcomes of the rural development programmes. An eThekwini Rural Development Strategy is also underway to *inter alia* help define spatially what is rural in the eThekwini context as well as formulating policies and strategies to protect rural and agricultural land.

Integrated Urban Development Framework (IUDF) 2016

The Integrated Urban Development Framework (IUDF) is a policy initiative of the Government of South Africa, coordinated by the Department Of Cooperative Governance and Traditional Affairs(COGTA).
The IUDF marks a New Deal for South African cities and towns. It sets a policy framework to guide the development of inclusive, resilient and liveable urban settlements, while addressing the unique conditions and challenges facing South Africa's cities and towns. It advocates the effective management of urbanisation so that the increasing concentration of an economically active population translates into higher levels of economic activity, greater productivity and higher rates of growth, thereby transforming our South African cities into engines of growth.

The key outcome of the IUDF is spatial transformation. The identified policy levers and priorities are crucial for maximising the potential of urban areas, by integrating and aligning investments in a way that improves the urban form. The intention is to retrofit existing city footprints to produce compact, coordinated and connected cities, using transit-oriented and other urban planning strategies to yield desirable social, economic and environmental outcomes, as envisioned in the National Development Plan. This should be done in a way that strengthens rural-urban linkages and promotes urban resilience and urban safety. It is intended that theIUDF be used as a guide to achieve a unified and innovative response to the building of inclusive, resilient, safe and liveable urban settlements.

The IUDF responds to the post-2015 Sustainable Development Goals(SDGs), in particular to Goal 11: Making cities andhuman settlements inclusive, safe, resilientand sustainable. It also builds on various chapters of the National Development Plan (NDP) andextends Chapter 8 'Transforming human settlements and the national space economy' and itsvision for urban South Africa:

> *By 2030 South Africa should observe meaningful and measurable progress in reviving rural areas and in creating more functionally integrated, balanced and vibrant urban settlements. For this to happen the country must:*

- Clarify and relentlessly pursue a national vision for spatial development;
- Sharpen the instruments for achieving this vision; and
- Build the required capabilities in the state and among citizens.

To achieve this transformative vision, four overall strategic goals are introduced:

Access: To ensure people have access to social and economic services, opportunities and choices
Growth: To harness urban dynamism for inclusive, sustainable economic growth and development
Governance: To enhance the capacity of the state and its citizens to work together to achieve socialintegration.
Spatial Transformation: To forge new spatial forms in settlement, transport, social and economic areas.
These goals inform the eight priority levers of the strategy.



The eight levers are premised on the understanding that :

1. Spatial planning forms the basis for achieving integrated urban development, which follows a specific sequence of urban policy actions
2. Integrated transport that informs targeted investment into integrated human settlements, underpinned by integrated infrastructure network system
3. Efficient land governance which all together trigger economic diversification inclusion and empowered communities
4. Deep governance reform to enable and sustain all of the above.

The eThekwini Municipality embraces the principles outlined in the IUDF and now that it has been gazetted will be taking steps to collaborate with National and Provincial COGTA to facilitate its implementation.

Sustainable Development Goals (UN Assembly 2015)

In 2015 the Sustainable Development Goals (SDG's)(Adopted by the UN Assembly in 2015) replaced the Millennium Development Goals. The intention of the SDG'sis to be a universally shared common, globally accepted vision to progress to a just, safe and sustainable space for all inhabitants. It is based on the moral principle of the Millennium Development Goals that no one or one country should be left behind and that each country has a common responsibility in delivering on the global vision. In the development of the SDG's each of the goals are conceived as both ambitions and challenges to countries and more so cities. It is further noted that each of the SDG targets and goals are applicable to both developed and developing countries alike. The universality of the targets and goals represent differing degrees of challenges and ambitions for different countries depending on their current developmental trajectory and circumstances. The goals are also flexible enough to allow for differentiated approach through all levels of government. One of the departure points in developing the SDG's was that countries would need to ensure that there is a balance between the economic, political, social and environmental effort required to ensure that these goals are achieved. The municipality is currently working with its international partners in the development of the Sustainable Development Goals and indicators that would be adopted in 2016. The SDG's allow for a holistic development of cities with a wider range of development programs. The municipality would continue to address these issues in a holistic and integrated manner.

The goals consist of quantified targets to address extreme poverty in its many dimensions viz. poverty, hunger, disease, lack of adequate shelter, and exclusion whilst promoting gender equality, education, and

environmental sustainability. At the same time the goals also represent basic human rights i.e. the rights of each person on the planet to health, education, shelter, and security. The SDF strives to respond to all the goals and targets within its mandate but is largely influenced by Goal 11: 'Making cities and human settlements inclusive, safe, resilient and sustainable' as its primary goal.

1.2.1.1 State of the Nation Address – February 2016

The State of the Nation Address (SONA) for the 2016 confirmed the President's commitment to the Nine Point plan to ignite growth and create jobs. These plans are as follows:

1. Resolving the energy challenge
2. Revitalizing agriculture and the agro-processing value chain
3. Advancing beneficiation or adding value to our mineral wealth
4. More effective implementation of a higher impact Industrial Policy Action Plan
5. Encouraging private sector investment
6. Moderating workplace conflict
7. Unlocking the potential of SMMEs, co-operatives, township and rural enterprises
8. State reform and boosting the role of state owned companies, ICT infrastructure or broadband roll out, water, sanitation and transport infrastructure as well as
9. Operation Phakisa aimed growing the ocean economy and other sectors.

The SONA 2016 also highlighted areas of specific importance for the country some of the issues raised are:

- 2016 is the year of Local Government elections and the president urged youth to register and vote in the upcoming elections. The Back to Basic program was further highlighted with measures to improve performance also indicated. Some of the measures could include spot checks, site visits, forensic reporting and increased interventions into struggling municipalities.
- The fight against HIV/AIDS received a boost with the announcement that the supply of anti-retroviral drugs would be improved through the establishment of a state-owned pharmaceutical company. The Health Ministry would also continue with the HIV prevention campaign largely aimed at the youth. From an eThekwini Perspective the issues relating to HIV/AIDS is timely considering that the city is Hosting the World Aids Conference in 2016. In December 2016 the white paper on the National Health Insurance, which aims to improve healthcare provision in the country, would be released
- Land claims featured in the SONA with 120 000 additional applications being lodged for those that missed the 1998 deadline. The President indicated that a land ownership bill would be presented to parliament where land ownership would be capped to 12 000 hectares, prohibition of foreigners owning land and long term leases promoted.
- It was noted that five of the nine provinces are currently experiencing drought and that government through various programs are providing relief to the affected communities, the President stressed the need to conserve water resources. Community outreach projects such as Operation Hydrate was commended.
- Government would introduce and implement cost cutting measure to curb wasteful expenditure. The president noted that the country was in an economic slump and urged all to embrace austerity measures. The roll out of the nuclear program would continue and would be procured on a scale and pace that the

country can afford. Cabinet would also need to look at the implications of having two capitals which is currently cost prohibitive.

- Parliament would also review its migration policy which would make it easier for business to obtain visa's for scarce skilled personnel from abroad. It was noted that preference should be given to local workers and

1.2.2 Kwazulu-Natal Provincial Growth and Development Strategy (PGDS)

The Provincial Growth and Development Strategy (PGDS) emanates from a Vision for KwaZulu Natal (Vision 2030) which says: "By 2030, the Province of Kwazulu-Natal should have maximized its position as a Gateway to South and Southern Africa, as well as its human and natural resources so creating a safe, healthy and sustainable living environment."(PGDS 2011) This strategy feeds into the National strategy, and its highlights are economic growth and improvement of the quality of life for citizens of KwaZulu-Natal.

The PGDS responds to and focuses on growth and development, in particular: to create sustainable jobs that will improve the people's lives and build on growing integration of the economies across the board. It further plans to ensure that the citizens, especially the youth, have education as well as skills to take up job opportunities created for them. It also identifies ways of addressing social ills that will ensure that the quality of life of citizens is improved. Crime, violence and corruption are amongst the causes of social ills which the strategy plans to eradicate.

The strategy should also find means and ways to better utilize the natural resource base and land that is still available to improve agricultural production as well as development, whilst ensuring that sustainable environmental planning principles are applied.
The plan further focuses on improving the way government works so as to ensure integration as well as fighting corruption, maladministration as well as effective and efficient financial management.

Food security programmes should be efficiently managed both in urban and rural areas, and there should be a positive response to climate change including innovative ways that are driven by the needs of sustainability such as production and use of renewable energy.

The strategy further encourages partnerships between the communities, government as well as relevant stakeholders so that strategies to eradicate poverty and inequality should be owned and championed by its own people, and should not merely be seen as government initiatives.

The eThekwini Municipality influences and responds to the Provincial Growth and Development Strategy as follows:

- Job creation, through the automotive, tourism, agriculture, chemicals, creative industries, construction, textile, wood, pulp and paper sectors.
- Human resource management, through various skills development programmes. The Municipality's graduate's internship programme, as well as skills enhancement programs for councillors and the officials

- Human and Community Development, through the provision of community halls, stadiums, swimming pools, parks, cemeteries, schools and police services (Metro). The Municipality has also provided opportunities through the expanded public works programmes in the form of pipe renewal, road maintenance, sewer upgrade and other human settlement activities as part of community development programmes
- Strategic infrastructure, such as The Dube Trade Port, on-going Point precinct development, Cato Ridge industrial development, Bridge City development, Port expansion programme and public road networks.
- Spatial equity, justice, resilience and sustainability through the Municipality's Spatial Development Framework. In terms of our Municipal SDF, spatial equity and integrated Land Use Management guide the allocation and utilisation of human and environmental resources towards sustainable growth and development, particularly in areas of need.

1.2.2.1 State of Province Address, 2016 (SOPA)

The Premier highlighted Key Intervention areas for the province that would influence the IDP/ SDF for municipalities. In the SOPA 2016 the alignment of the IDP, NDP and the PGDS were stressed. In the speech the Premier alluded to the need for "Sustained shared economic growth as a primary driver for job creation and poverty eradication".

To achieve decent work and sustainable livelihoods for inclusive growth; rural development, land reform and food security; improved quality basic education; a long and healthy life and fighting crime and corruption, 9 priority areas were defined as follows:
Priority Intervention 1: Revitalization of the agro-processing value chain (APAP)
Priority Intervention 2: More effective implementation of a higher impact Industrial Policy Action Plan
Priority Intervention 3: Advancing beneficiation (adding value to our mineral wealth
Priority Intervention 4: Unlocking the potential of SMMEs, cooperatives, township and rural enterprises
Priority Intervention 5: Growing the oceans economy
Priority Intervention 6: Resolving the energy challenge
Priority Intervention 7: Managing work place conflict
Priority Intervention 8: Scaling up private sector participation
Priority Intervention 9: Cross-cutters related to ICT, Transport Infrastructure, Science and Technology and Water

The Premier also stressed the need for developing and protecting our human capital
This strategy would inform the IDP is as follows:

- Social security and housing, where the focus is on improving Child Health Outcomes, Improving access to quality Education, Uplifting Living Standards, Food and Nutrition Security, Social Security, as well as Community Mobilization and Development.
- Agriculture development, by adopting, adapting and fast-tracking the Fetsa-Tlala approach to ensure household food security, linking mechanisation to entrepreneurship, commercialisation of livestock on communal land; revitalisation of land reform farms; promotion of agriculture cooperatives and agribusiness youth empowerment.

- Enterprise Development through opportunities presented in waste management, construction, processing plants, rural renewable energy, mining and business support.
- Employment Creation with specific emphasis on rural infrastructure development revamped expanded public works programme, rural tourism and communal milling stations.
- Skills Development, in particular to address issues of early childhood development, primary and secondary schools education improvement, skills alignment to economic growth, artisan development, and youth skills development and lifelong learning.

Good governance

The Back to Basics program was stressed as a methodology which is aimed at strengthening local government by focusing on issues such as:

- Putting people first, listen and communicate;
- Adequate and community-oriented service provision;
- Good governance and transparent administration;
- Sound financial management and accounting; and
- Robust institutions with skilled and capable staff

Develop strategic infrastructure

Infrastructure is key to spatial and strategic development and the following focal areas were identified in the SOPA 2016:

- The main focus on infrastructure development is to ensure that support is key to facilitate processes in respect of the 18 Strategic Integrated Projects, commonly referred to as SIPS
- Development of Durban Dube Trade Port Aerotropolis with Industrial/logistics Parks with business offices and commercial floor area.
- Working with Transnet to ensure the expansion of and maintenance of the core rail freight network, as well as on exploring opportunities for the manufacturing and servicing of the required rolling stock within the Province;
- Ensuring that the branch rail lines are revitalised to prevent further movement of goods from rail to road;
- Working with SANRAL to create additional capacity along primary movement corridors in the Province;
- Maintaining our secondary road network;
- Extending rural road access in support of rural development initiatives;
- Working with PRASA to improve passenger rail services and to explore the possibility of establishing high speed rail connections in the Province; and
- Developing integrated public transport services
- Water infrastructure: to increase water storage capacity through the building of dams programme
- Investment in social infrastructure and human settlement services

1.2.3 City Planning

1.2.3.1 Establishment of the City Planning Commission

The eThekwini Municipality recently established a City Planning Commission, the first in the country, which is an advisory body appointed by Council to propel the Municipality's long term vision and strategic plan. The formation of the Commission is also part of the City's institutional transformation, in an endeavour to strengthen and build an efficient administration and ensure good governance. The main objective of the Commission is to guide the Municipality on a range of issues pertaining to the development of its long term growth and development strategy. This strategy is aligned to the strategic objectives and targets of the National Development Plan and the KZN Provincial Growth and Development Strategy. The City Planning Commission currently comprises of 14 part-time external commissioners, including a chairperson and deputy chairperson, who were all selected on the basis of their experience and expertise. The Commissioners are individuals who are committed to contributing towards ensuring that Durban becomes "Africa's Most Caring and Liveable City" as well as fundamentally changing the development profile of its people and consequently shedding all vestiges of apartheid and colonialism, especially from a spatial planning perspective.

The City Planning Commission is responsible for 3 deliverables, namely

- A City Diagnostic
- A Long term City Development Plan
- An Implementation Strategy that would influence the development of the City's IDP

The approaches that the commission will be using to realize the 3 deliverables listed above are:

- Identify and recommend a methodology for the City Development Plan
- Identify and recommend an enduring vision, identity & outcomes for a City Development Plan
- Identify a set of corporate scenarios that require response across the Municipality and the City
- Identify knowledge gaps & commission research including international best practice
- Craft a stakeholder engagement strategy relating to the deliverables to ground truth and galvanise support around a consensus plan
- Internalise and identify the role of the City in responding to the NDP, PGDS and other national and provincial priorities
- Identify key issues facing the municipality now and into the future and make recommendations relating to these.
- Review and make recommendations relating to appropriate institutional structures to underpin the implementation strategy.

1.2.3.2 Urban Resilience Strategy- Rockefeller Foundation's 100 Resilient Cities Centennial Challenge

More than a decade into the 21st century, it is clear that the world is facing unprecedented change to systems and ways of life and that these are growing in frequency, impact and scale. These changes range from environmental (for example, climate change) to social and economic (for example, local and global economic meltdowns). To enable cities to better address the major challenges of the 21st century, the Rockefeller Foundation launched the 100 Resilient Cities Centennial Challenge (100RCCC) to assist cities around the world to build urban resilience. The Rockefeller Foundation has defined resilience as the ability to

withstand chronic stress and acute shocks while still maintaining essential functions and recovering quickly and effectively to a state better prepared to cope with future changes. Resilience is also about planning in new and innovative ways.

Durban was one of 372 cities from across the world to apply for the 100 Resilient Cities Centennial Challenge and in December 2013 was announced as one of the first cohort of 33 successful cities to be inaugurated into the 100 Resilient Cities (100RC) Programme. As one of the first cities to be selected for the 100RC Programme, Durban has been given the opportunity and responsibility to work in a new and emerging field. The programme provides a significant global platform to share local innovation and thinking and to learn from others, something that is becoming increasingly important as the world moves into an uncertain and unpredictable future. Participation in the 100 RC Programme also provides a significant opportunity for eThekwini Municipality to bring together a range of initiatives currently underway within the municipal area and to work with a range of stakeholders to develop new initiatives that can be incorporated into a resilience strategy for Durban.

Part of the challenge for Durban is translating global ideas around resilience into our local context. Durban is particularly susceptible to changes to social, environmental and economic systems, with many communities already vulnerable to pressures such as limited, or lack of, access to sanitation and waste removal, adequate housing, safe drinking water, a healthy natural environment and adequate health care facilities. How the Municipality plans and prepares for these challenges is critical in order to avoid exacerbating an already fragile situation and to ensure that Durban is able to respond effectively to current and future change. For these reasons, Durban's participation in the 100RC Programme presents a unique opportunity for the Municipality to begin to think and plan in a more innovative and coordinated way around issues of resilience, and to generate the support needed to implement action around key resilience priorities for the city.

The 100RC Programme in Durban is being coordinated by the Chief Resilience Officer. The 100RC Programme in Durban involves engaging with a cross-sectoral municipal technical team, a group of 'critical thinkers' from within and outside the municipality as well as a range of stakeholders such as tertiary institutions, NGOs, business and members of the public to ensure that the resilience strategy is representative of the challenges facing Durban.

The Resilience Focus Areas for Durban were identified through an 18-month process that involved stakeholder engagement, risk assessment and research. These focus areas are: Bold and Participatory Governance; Knowledge-centred City; Catalytic and Transformative Economy; Innovative Place-making; Sustainable and Ecological City; and Equitable and Inclusive Society. These focus areas will be taken into Phase 2 of 100RC during 2016 in order to understand where the systemic and strategic points for intervention might lie across these focus areas, and to explore what actions might be required to catalyse the changes that are needed to build a resilient Durban. A critical part of the work is to ensure that the outcomes align with or inform other strategic planning processes in the city such as the Integrated Development Plan and Spatial Development Framework and the work of the City Planning Commission.

1.2.4 Legislative Context

The Statutory and Strategic Planning Environment is directed and guided by a plethora of legislation. Planning legislation emanates from National, Provincial and Municipal structures, depending on each sphere of government's specific mandate.

The current overarching legislative and policy requirements pertaining to planning and development include the following:

i. Spatial Planning and Land Use Management Act No. 16 of 2013 (SPLUMA)
ii. Municipal Systems Act No 32 of 2000 – Chapter 5 relating to :-
 a. Integrated Development Plan (IDP)
 b. Spatial Development Framework (SDF)
iii. KwaZulu Natal Planning and Development Act No. 6 of 2008 (PDA)
iv. Town Planning Ordinance No 27 of 1949 (Section 67 in particular)
v. Land Use Schemes
vi. National Building Regulations

The KwaZulu-Natal Planning and Development Act 2008 (PDA) remains in force only in so far as Chapters 2,3,4,5 and 6 are concerned, but Appeals now falls under SPLUMA. Coupled with that, components of the Town Planning Ordinance, 27 of 1949 remain in effect for Section 67: Special Consent Applications which in itself is problematic, causing confusion to practitioners, users and of course ratepayers.

There are also policies and other pieces of legislation such as the National Environment Act and the National Coastal Management Act which also need to be considered where relevant. The legislative environment is a constantly changing one and decisions and interpretation arising from new legislation, draft Bills and court rulings and judgments steer the Municipality in new and different directions.

The most relevant piece of legislation in the context of municipal planning is SPLUMA. SPLUMA was gazetted and adopted nationally in 2013 and the regulations were gazetted and adopted on the 23 March 2015. The Act became effective as of the 1 July 2015. As of the 1 July 2015 all municipalities have to operate within the context of SPLUMA and its regulations.

Within the context of SPLUMA, the following outlines the functions and mandates of the three spheres of Government:

Municipal planning

Municipal planning, for the purposes of SPLUMA, consists of the following elements:

(a) the compilation, approval and review of integrated development plans;

(b) the compilation, approval and review of the components of an Integrated Development Plan prescribed by legislation and falling within the competence of a municipality, including a spatial development

framework and a land use scheme; and

(c) the control and regulation of the use of land within the municipal area where the nature, scale and intensity of the land use do not affect the provincial planning mandate of provincial government or the national interest.

Provincial planning

Provincial planning, for the purposes of SPLUMA, consists of the following elements:

(a) the compilation, approval and review of a provincial spatial development framework, approval, review and implementation of land use management systems;

(b) the planning by a province for the efficient and sustainable execution of its legislative and executive powers insofar as they relate to the development of land and the change of land use; and

(c) the making and review of policies and laws necessary to implement provincial planning.

National planning

National planning, for the purposes of SPLUMA, consists of the following elements:

(a) the compilation, approval and review of spatial development plans and policies or similar instruments, including a national spatial development framework;

(b) the planning by the national sphere for the efficient and sustainable execution of its legislative and executive powers insofar as they relate to the development of land and the change of land use; and

(c) the making and review of policies and laws necessary to implement national planning, including the measures designed to monitor and support other spheres in the performance of their spatial planning, land use management and land development functions.

Section 156 (1)(a) of the Constitution provides the municipality with executive authority in respect of and the right to administer matters listed in Schedule 4 Part B. This includes the function of **municipal planning**. This important aspect has now been ratified in three important legal cases.

In the case of City of Johannesburg Metropolitan Municipality v Gauteng Development Tribunal and Others, municipal planning was considered to be 'planning' in the context of municipal affairs a term which has assumed a particular, well-established meaning which includes the zoning of land and the establishment of townships.

In that context, the term is commonly used to define the control and regulation of the use of land.

In the Constitutional Court case of Minister of Local Government, Environmental Affairs and Development Planning Western Cape v The City of Cape Town & Others,2 it was stated that Municipalities are best suited to make zoning and subdivision decisions, and that certain matters are best left for municipal determination. Further, Municipalities were said to be the frontiers of service delivery.

The most recent judgement in the Constitutional Court the case of Tronox Sands (Pty) Ltd versus KwaZulu-Natal Planning and Development Tribunal and others, the Constitutional Court upheld an earlier judgement of the High Court declaring Section 45 of SPLUMA unconstitutional in that it interfered with municipalities' exclusive constitutional power to make municipal planning decisions. This judgement was handed down on the 29 January 2016.

These judgements have effectively entrenched the role of planning and decisions around planning at a **municipal level**, with Provincial and National spheres to offer monitoring and support mandates. This has resulted in many Provinces across the country promulgating framework planning legislation in line with their mandate to monitor and support Municipalities, while most Municipalities have formulated By-laws to give greater effect to their constitutional mandate.
EThekwini Municipality as a Metropolitan Municipality has opted to give full effect to its Constitutional mandate. In that regard, the municipality has prepared a Daft Planning By-law. Section 156(2) of the Constitution provides that a Municipality may make and administer by-laws for the effective administration of the matter which it has the right to administer, which includes municipal planning.

Section 32(1) of SPLUMA provides that a municipality may pass By-laws to enforce its land use scheme. The By-law will allow the municipality to direct planning more efficiently in terms of its Strategic Plans, Schemes and workflows. The By-law is modelled on the Development Principles as contained in Chapter 2 of SPLUMA, which are the principles of Spatial Justice, Spatial Sustainability, Efficiency, Spatial Resilience and Good Administration.

The **objectives** of the eThekwini Municipal Planning By-Law are:

(a) to provide for a package of plans which shall inform the social, economic, environmental and infrastructural development in the Municipality;

(b) to provide a uniform, effective, comprehensive, and interrelated framework for spatial planning and land use management;

(c) to provide for the inclusive, developmental, equitable and efficient planning in the spirit of co-operative governance;

(d) to provide a framework for co-operative and cross-border relationships with all spheres of Government and to ensure the integration of planning between the Municipality and neighbouring Municipalities;

(e) to provide a framework for policies, principles, norms and standards for spatial development planning and land use management;

(f) to provide a framework for the monitoring, coordination and review of the spatial planning and land use management system;

(g) to regulate land development application and decision-making procedures;

(h) to provide for the establishment, functions and operations of the Municipal Planning Tribunal;

(i) to provide for facilitation and enforcement of land use and development measures;

(j) to provide for an appeal authority; and

(k) to provide penalties for breach of its provisions.

The KwaZulu-Natal Provincial sphere of planning has also now commenced with preparing a draft Standard By-law for the Province.

Section 35 (1) of the Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) requires a Municipality to establish a Municipal Planning Tribunal, to determine land use and development applications within its municipal area.
The eThekwini Municipal Planning Tribunal (MPT) commenced operations on the 2 September 2016. The constitution and mandate of the MPT is as per the SPLUMA Regulations which came into effect on the 23 March 2015.

Land Use Schemes
It is the Municipality's responsibility to build the SPLUMA Development Principles into all its planning tools. The SDF, all lower order spatial plans and Land Use Schemes need to comply with the Development Principles and such alignment has already begun.

These Development Principles are applicable to all land parcels within the Municipality's area of jurisdiction and includes the land under Traditional Authority. In terms of SPLUMA, each Municipality is responsible for formulating and adopting wall-to-wall schemes within its area of jurisdiction. The eThekwini Municipality is committed to this but it must be mindful of the fact that these schemes will largely fall over traditional tribal areas and this is to be treated sensitively and makes meaningful progress slow in this regard.

The seven former R293 Townships have since been consolidated and form part of the relevant Primary Schemes in operation, being the North, Outer West, Inner West and South Schemes. The four primary schemes are reviewed annually and the current 2015-201 review will be finalised by June 2016.

The Durban Planning Scheme is the last of the schemes to be reviewed and adopted. This is an on-going project this 2015/2016 financial year.

All LEFTEA schemes in the City have been identified and a single Scheme within each land use management region is being proposed, but has not yet been finalised. All applications lodged in terms of the DFA, have now been received and a project to incorporate them into the Schemes has begun. This project has a 24 month time period due to the large number of applications.

The final stage of the Scheme Consolidation work that will be undertaken will include collapsing the Primary Scheme and the LETEA Scheme; then collapsing the DFA into the Scheme. Land Use Management commits itself to delivering a sustainable and efficient Planning System within its area of jurisdiction.

At a strategic level, this SDF review aims to provide evidence and information on SPLUMA compliance as well as complying with the currently applicable legislation notably, the Municipal Systems Act, Act No. 32 of 2000 and its regulations.

In addition to the planning policy and legislative context outlined above, the SDF guides and is also guided by a wide range of other national and provincial policies and legislation and departmental sector plans.

1.2.5 Cross-Municipal Boundary Planning and Alignment

In terms of both the (MSA-S26 (d), MSA Regs S2 (4) (h), and SPLUMA, Municipalities are required to provide a clear indication of how the SDF is aligned with the planning of neighbouring areas. Although initially facilitated by the Department of Co-operative Governance and Traditional Affairs (COGTA) the eThekwini Municipality has been engaging with neighbouring municipalities on an ongoing basis for some years now, through a variety of fora – these include regular meetings held with representatives of each neighbouring municipality to discuss areas of alignment, shared services, demarcation, understanding the implications of development applications and developing coordinated responses as well as through the more formally established SIP, Aerotropolis and Port Expansion processes. Cross Boundary alignment is also achieved through engagement in the COGTA driven IDP Forum at which there are representatives of provincial government departments and parastatals responsible for developments in the Metro and surrounding areas. The Municipality has also recently mapped all the SDF's of its neighbouring districts in an effort to visually depict the areas of alignment and non-alignment and serve as a basis for further discussions. The municipality will continue to drive this initiative and work collectively with its neighbours in trying to address the developmental and service challenges in the region.

1.2.6 Municipal Horizontal and Vertical alignment

The eThekwini Municipality has used alignment as an instrument to synthesize and integrate the top-down and bottom-up planning process between different spheres of government and sectors. There are two types of alignment procedures that eThekwini Municipality has initiated in the planning process i.e. vertical and horizontal alignment.

Vertical alignment is between eThekwini Municipality and neighbouring municipalities as well as other spheres of government (Provincial, National Departments, Private Sector and other stakeholders such as Eskom, Telkom). The aim of this alignment is to ensure that the IDP/SDF are in line with National and Provincial policies and strategies so that it is considered for the allocation of departmental budgets and conditional grants. It also guides the private sector in terms of highlighting areas of strategic investment and critical spending. The COGTA initiated Provincial IDP Forum brings together all the relevant provincial and municipal stakeholders in an effort to achieve this desired vertical alignment at a provincial level. At the same time, National Treasury and National COGTA are providing support at a national level by bringing together key national departments and parastatals involved in the municipal area. While this provides the municipality with the additional support needed to achieve more integrated and coordinated development it has also led to the duplication of some processes that have been in place for some time and in this regard a more structured approach with clearly defined roles and responsibilities across the national and provincial spheres of government is recommended.

Horizontal alignment occurs across municipal sector departments and plans to ensure that the planning process is integrated and issues are co-ordinated and addressed jointly. Since 2009, regular and extensive sector engagement has been undertaken in the preparation of the SDF through on-going SDF Planning and Sector Meetings and sector input in all lower order spatial plans in an effort to align the spatial vision, strategies, priority projects and timing of implementation across the municipality. Further opportunities for multi-sectoral engagement and input from "critical thinkers" takes place in related processes such as the City Planning Commission's work on the long term plan for the city, Climate Change Strategy, involvement in sector planning processes such as the Housing Sector Plan, Water and Sanitation Planning, Electricity / ESKOM Planning, the Municipal IDP forum and the "100 Resilient Cities" project processes and ICDG forum, to mention a few. Such on-going engagements help facilitate this horizontal sectoral alignment from the high level strategic plans (IDP and SDF) through to the identification and implementation of catalytic projects and programmes in the Built Environment Performance Plan (BEPP).These on-going engagements with key sector departments have helped foster a more consensus-based and synergistic approach to city development.

1.3 Background to the eThekwini Municipal Area's (EMA's) Planning Context

In addition to national, provincial and local policies, our Municipal SDF is also informed by previous planning initiatives of the Municipality including initiatives that came about as a result of the local government restructuring process. In December, 2000 a new Council for the eThekwini Municipality (Unicity) was established as part of the Developmental Local Government Agenda that required that one local government body be responsible for the overall strategic planning and management of the EMA. The New Council involved the amalgamation of seven councils administered by the old Durban Metropolitan Area, the Umkomaas Traditional Local Council and portions of ILembe and Ndlovu Regional Councils.

Due to the multiplicity of local authorities, institutional fragmentation and poorly coordinated and uneven spatial and economic development pattern the restructured local government provided a window of opportunity to address the historical lack of strategic spatial guidance, as well as a more cooperative approach to manage shared resources and introduce an approach to land use management that is more flexible and responsive to development. This change enabled the eThekwini Municipality to move beyond just the delivery of services and goods administration to strategically turning the Municipality into a globally competitive and attractive Municipality

Out of the restructuring process, eThekwini Municipality embarked on the following initiatives:

1.3.1 The Long Term Development Framework (LTDF)

In 2001 eThekwini Municipality embarked on a process to develop a LTDF and Integrated Development Plan for the eThekwini Municipal Area. The LTDF process was intended to assist the newly formed eThekwini Municipality to identify challenges that it faced as a result of the amalgamation that needed to be addressed in both the short and long term. The LTDF mapped out the developmental challenges and strategic vision for

the eThekwini Municipality over a period of twenty years and strategic priorities over the first five years. The vision statement as identified in the LTDF was as follows:

"By 2020 Durban Unicity will enjoy the reputation of being Africa's most caring and liveable city, where all citizens live in harmony. This vision will be achieved by growing its economy and meeting people's needs so that all citizens enjoy a high quality of life with equal opportunities, in a city that they are truly proud of".

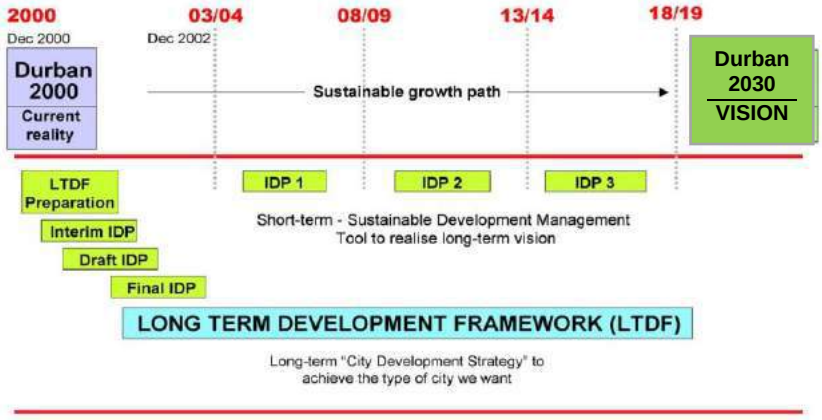
The vision was informed by the developmental challenges that were identified and needed to be achieved, namely:

- Have ease of movement in the Municipality
- Enjoy a safe environment in all parts of the municipal area
- Afford what the Municipality offers
- Enjoy a clean and green Municipality
- Have access to economic opportunities
- Enjoy homely neighbourhoods
- Have access to services, in particular municipal, health and education services

With delivery of these, the people of eThekwini should be able to:

- Live in harmony
- Be proud of their Municipality
- Feel protected
- Feel their basic needs are being met

The following diagram represents the Municipality's sustainable growth path as represented in the LTDF.



The IDP had a similar five year timescale with detailed management plans for the Municipality including programmes, projects, budgets and performance indicators.

1.3.2 Imagine Durban Long Term Development Plan (LTDP)

In 2010 the LTDF was revised through the Imagine Durban Long Development Term Plan project. The main purpose of this project was to develop a visionary plan that can inspire citizens, non-governmental organizations, businesses and government to work together to refine the vision statement and key

strategies. The revised vision statement as outlined in the Imagine Durban process and as adopted by the 2010 and beyond IDP reads: “By 2020 eThekwini will ***be Africa’s most caring and liveable city***”.

This vision will be achieved by growing its economy and meeting people’s needs so that all citizens enjoy a high quality of life with equal opportunities, in a Municipality that they are truly proud of. The Imagine Durban Long Term Plan outlined the following key strategies through the development framework:

* Creating a Safe Municipality;
* Promoting an Accessible Municipality;
* Creating a Prosperous Municipality where all enjoy Sustainable Livelihoods;
* Celebrating our Cultural Diversity, Arts and Heritage;
* Ensuring a more Environmentally Sustainable Municipality; and
* Fostering a Caring and Empowering Municipality.

1.3.3 The IDP’s Eight Point Plan

In line with the refined long term plan’s vision, strategies and outcomes, the eThekwini Municipality’s IDP’s Eight Point Plan outlined the short term strategies and outcomes intended at addressing the key challenges and achieving the long term vision. The eight point plans are the Municipality’s delivery plan, which despite being separate plans are supportive of each other to ensure effective delivery. The eight plans are:

1. Develop and Sustain our Spatial, Natural and Built Environment.
2. Developing a Prosperous, Diverse Economy and Employment Creation.
3. Creating a Quality Living Environment.
4. Fostering a Socially Equitable Environment.
5. Creating a Platform for Growth, Empowerment and Skills Development
6. Embracing our Cultural Diversity, Arts and Heritage.
7. Good Governance and Responsive Local Government.
8. Financially Accountable and Sustainable Municipality.

Given the fact that the Spatial Development Framework is a spatial translation of the Municipality’s IDP, and hence the eight point plans, the spatial vision, strategies and outcomes are also linked to both the short and long term strategies as outlined within the IDP and the Long Term Development Plan.

1.3.4 Current Planning Approach in the eThekwini Municipality

The eThekwini Municipality has developed a comprehensive land use management system for the entire Municipal area to give effect to the requirements of Section 26 of the Municipal Systems Act (2000). A key aspect of this system is the preparation of a “Planning and Development Management Toolbox” which will include a Package of Plans.

The establishment of the system includes a range of planning activities all running in parallel with each other with the common purpose of updating, refining and establishing appropriate mechanisms for managing land use and development in the Municipal area.

This Package of Plans is a **cyclic, integrated** and **iterative** process and shows the move from Municipality wide strategic level plans to detailed local level plans and land-use schemes. It is important therefore to consider the entire Package of Plans as part of the IDP / SDF as, together, this communicates the strategic intent through to the detailed land use guidelines as required in terms of the Municipal Systems Act. A list of the Council Approved Plans as well as the Plans in Progress are attached at Annexure 7 of this report and can be downloaded from the municipal website: http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Pages/default.aspx

The diagram below indicates the package of plans concept while Table 1 identifies the purpose and scope of each level of plan:

1.3.4.1 Package of eThekwini Plans

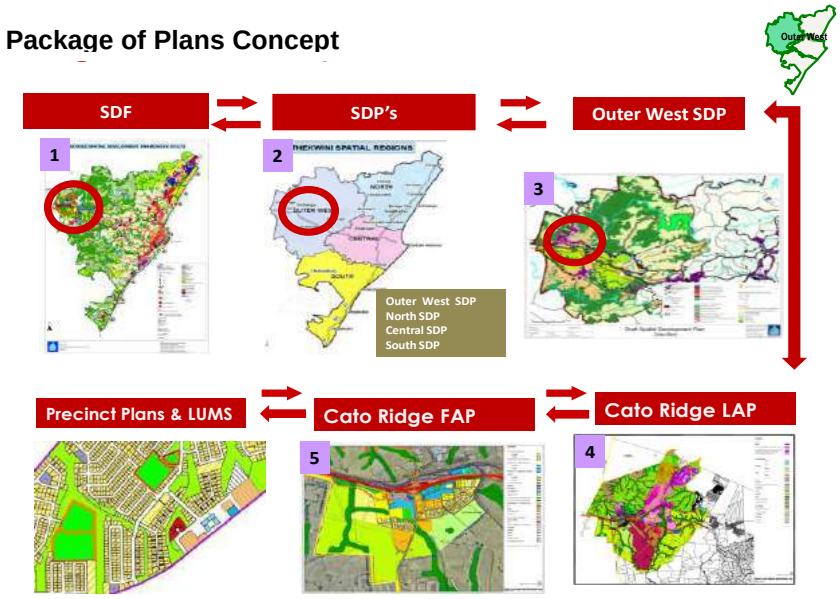


Table 1: Purpose and Scope of Existing Municipal Plans

PLAN TYPE	SCOPE	PURPOSE
Long Term Development Framework	Strategic: Economic Social and Environmental Objectives	Strategic Development Direction for the Municipality
IDP	Strategic: Operational Implementation	Strategic Implementation Direction and Imperatives for the Municipality
Spatial Development Framework	Strategic: Spatial Development	Strategic Spatial Development Intentions for the Municipality based on the LTDF, Imagine Durban and IDP
Spatial Development Plan	Strategic: Spatial Development	Translation of Spatial Development Intentions into Land Use, Transport, Environmental, Infrastructure implications Broad based Land Use Directives to guide Local Area Planning and LUMS, Bulk Infrastructure and Transportation Planning Directives for the Municipality
Local Area Plan	Detailed Physical Plan	Detailed Physical Planning Directives for the Municipality - Refining Land Use, Transport, Environment and Infrastructure to a level that informs the preparation of a Land Use Scheme. Also includes Urban Design Directives for Public and Privately owned Land. May include implementation proposals

Functional Area Plan	Detailed Physical Plan for special areas	Detailed Physical Planning Directives for the Municipality for areas with special environmental, economic, heritage etc characteristics. Detailed Urban Design Directives and / or Proposals. May include implementation proposals
Land Use Schemes	Legislative and statutory component focused on implementation.	Drive and direct development TheSDF gives effect to the intentions of the IDP and provides a framework for the formulation of an area and even site specific land used controls depending to the size of SDF area. Since eThekwini is a metro, its SDF could not be directly translated into a scheme level.

Below is an example of the spatial representation of the eThekwini Package of Plans showing how plans are translated from an SDF level to a level of detail.



The table below illustrates the nature of the sector information required for each level of plan.

Table 2: Nature of Sector Information Required for Each Level of Plan

Package of Plans		Sector							
		Environment	***Economic***	***Social***		***Infrastructural***			
Funct-ion	Type	Environment	Economic	Housing	Health/Welfare	Transport	Water//Waste	Coastal & Drainage	Electricity
Strategic Policy	LTDF	Environmental Policy	Economic Development Policy	Housing Policy	Services Policy	FREPTS (Task 8 FR Doc)	Services Policy	Services Policy	Services Policy
	IDP	Targets Programmes Standards Budgets	Targets Programmes Standards Budgets	Targets Programmes Standards Budgets	Targets Programmes Standards Budgets	- ITP - Public Transport Plan - Freight Plan - TDM Plan - Safety & Enforce Plan	Targets Programmes Standards Budgets	Targets Programmes Standards Budgets	Targets Programmes Standards Budgets
	SDF	Spatial Intentions ESMP	Spatial Intentions Economic Development Framework	Spatial Intentions Housing Framework	Spatial Intentions Services Development Framework	- PTP - OLS - Safety & Enforcement Plan - Infrastructure Plan - Rat Plan - TDM Plan	Spatial Intentions Services Development Framework	Spatial Intentions Services Development Framework	Spatial Intentions Services Development Framework
Implementation/ Development	SDP	Metro Level Spatial Plan Moss Plan	Metro Level Spatial Plan	Metro Level Spatial Plan Housing Plan	Metro Level Spatial Plan Facilities Plans	2020 Roads Master Plan FREPTS (Task 8 FR Doc) - LU in support of PT	Metro Level Spatial Plan Bulk Infrastructure Plan	Metro Level Spatial Plan Bulk Infrastructure Plan	Metro Level Spatial Plan Bulk Infrastructure Plan
	LAP	Moss Plan	Project Location Plan	Project Location Plan	Facilities Plan	IW & OW (ranks, OL, Infra needs) - Infrastructure Implementation - Infrastructure Maintenance	Local Bulk Infrastructure Plan	Local Bulk Infrastructure Plan	Local Bulk Infrastructure Plan
	FAP	Moss Plan	Project Location Plan	Project Location Plan	Facilities Plan	- Traffic Management & Operation - PT Operations	Local Bulk Infrastructure Plan	Local Bulk Infrastructure Plan	Local Bulk Infrastructure Plan
Management	Scheme	Use Zones Development Controls Landscape Controls	Use Zones Density Controls Built Form Controls	Use Zones Density Controls Built Form Controls	Use Zones Density Controls Built Form Controls	Traffic Engineering - Geometric Design - TIA/Development --Impacts - Traffic Calming - Parking Layout & design Parking prediction/forecasting - Road Safety - Traffic Management Signals ITS - Traffic Operations Traffic Signs Street Marking Management of PT facilities Enforcement & Regulation OLS PTP Freight Plan FREPTS (Task 8 FR Doc) - LU in support of PT	Standards	Standards	Standards

CHAPTER 2

STATUS QUO AND SECTOR REPORTS

***Synopsis**:* The role of this chapter is to *introduce* the reader to the local and provincial context, issues and challenges including the planning issues and challenges relating to cross border planning with surrounding municipalities. The spatial development team has initiated a working stream with neighbouring Municipalities to discuss proposals particularly those with cross border implications in order to foster greater cross border alignment and planning.

From a local context eThekwini's planning background and current planning is explored with a particular focus on the four Municipal Planning Regions, namely, *the North, Central, South and Outer West* Planning Regions. The Municipal Land Use Management Framework (Land Use Schemes) has also been reviewed under the local context.

2. INTRODUCTION TO ETHEKWINI MUNICIPAL AREA (EMA)

2.1 EThekwini Contextual Framework

The eThekwini Municipality is located on the east coast of South Africa in the Province of KwaZulu-Natal (KZN and is bordered by three district municipalities, namely, iLembe in the north, UGu in the south and uMgungundlovu in the west as shown in Figure 1 below. The eThekwini Municipal Area (EMA) spans an area of approximately 2297km^2, extending from Tongaat in the North to Umkomaas in the South and from the coastline in the East to Cato Ridge in the West and is characterized by coastal plains and steep and dissected topography. Figure 1 below shows the spatial extent of the EMA as well as the administrative extent of the municipal planning regions.

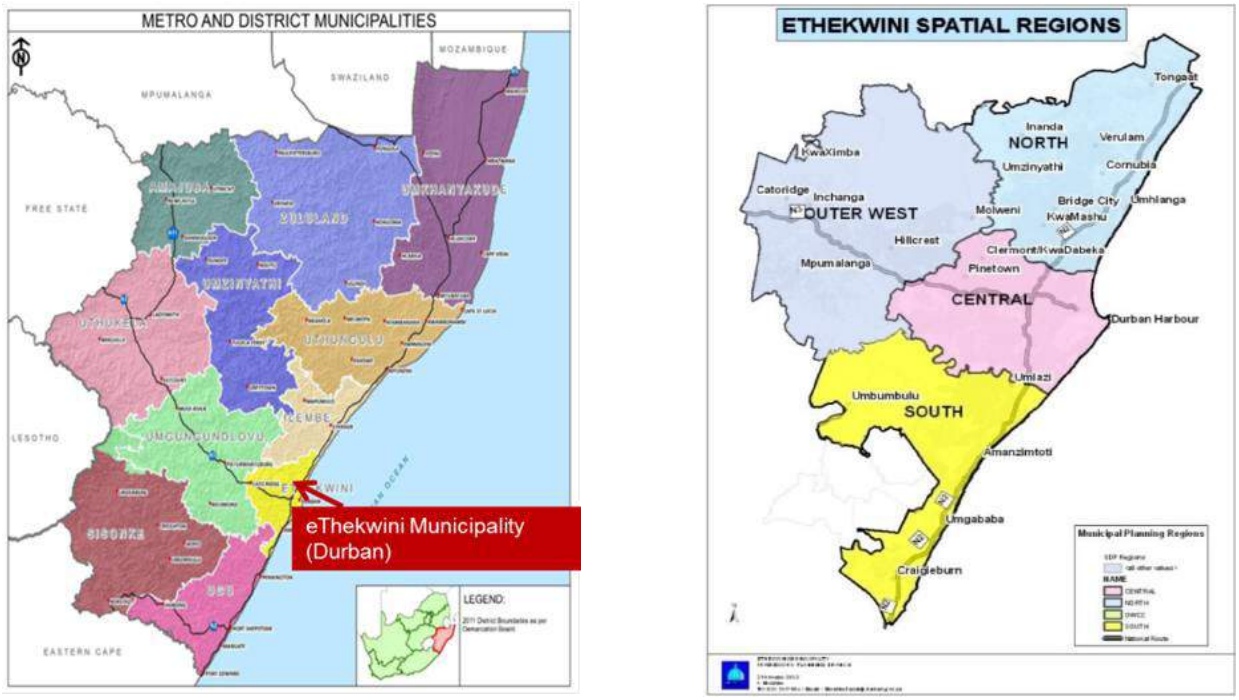


Figure 1: Location of eThekwini Municipality Provincially and Spatial Regions

2.1.1. EThekwini Demographic Profile

∗ *All figures and graphs were created using Stats SA 2011 data*

Population

The total population of eThekwini is currently approximated at 3.4 million, just over one third of the population of KwaZulu-Natal (Stats SA 2011).

In terms of population spread, the greatest population concentrations occur in the central and north planning regions. The Outer West Region which represents the largest extent of the Municipality (approximately 78 438ha) actually comprises of just 11% (approximately 338 000 people) of the total population of the Municipality. The northern region which represents approximately 26% of the total extent of the Municipality has approximately 1.15 million people which represent 33% of eThekwini's total population. The majority of the population of approximately 1.18 million people (34% of the total population) is located in the Central region which is the second largest in extent in the municipality. The South makes up 23% (760 000 people)

of the total Municipal population. The figures below depict the total population and race profile and the population breakdown per region in the Municipality.

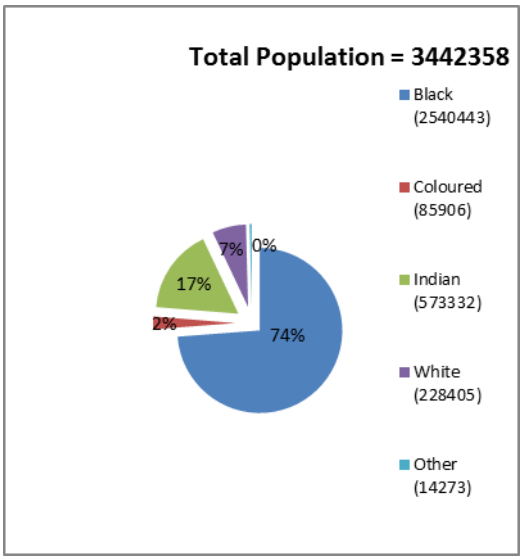


Figure 2: Total Population and Profile by Race

Source: Stats SA 2011

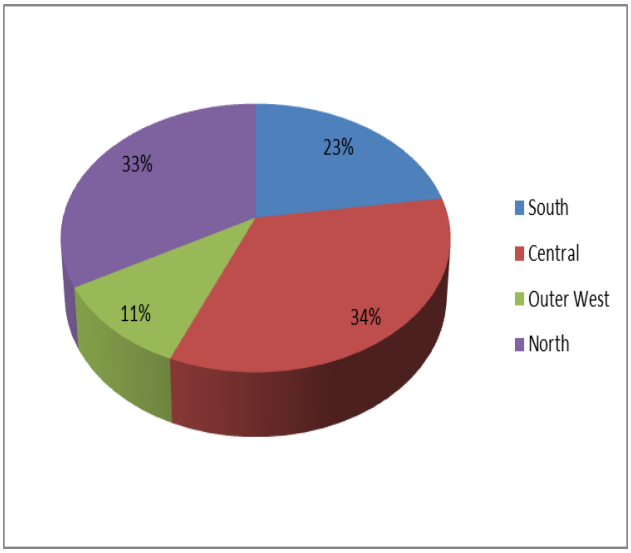


Figure 3: Demographic Breakdown per Region

The people who reside within the municipal area consist of individuals from different ethnic backgrounds. The majority of the population come from the African community (74%) followed by the Indian community (17%), White community (7%), Coloured community (2%) and other nationals (0.4%).

Population Projection

The population number is projected to rise to approximately 3.8million by 2021 (eThekwini Municipality IDP Review 2014/2015). According to Stats SA (2011) eThekwini has experienced an average annual growth in population of 1.13% from 2001 to 2011 as against 2.34% from 1996 to 2001. The growth of the population is likely to be driven by the general trend of migration and natural growth.

The eThekwini Demographic Projections for the period 2012 to 2021 are depicted Table 3 below.

Table 3: eThekwini Demographic Projections

Year	Population estimate
2012	3 446 447
2013	3 480 726
2014	3 517 157
2015	3 555 868
2016	3 596 543
2017	3 638 918
2018	3 682 524
2019	3 727 032
2020	3 772 097
2021	3 818 499

Source: eThekwini Transport Authority Demographic Study

Gender Profile

The gender profile of the eThekwini Municipality is typical of the trend in most other municipal areas. There are a greater number of females totaling to 1759956 as opposed to males which are 1682408. The diagram below presents the gender profile.

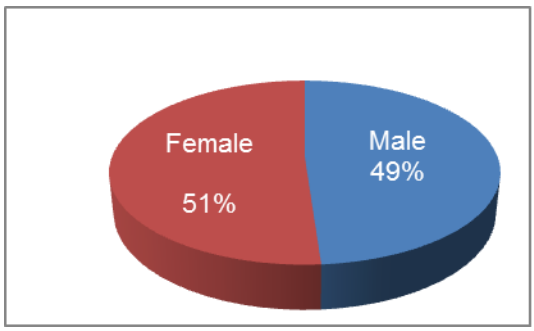
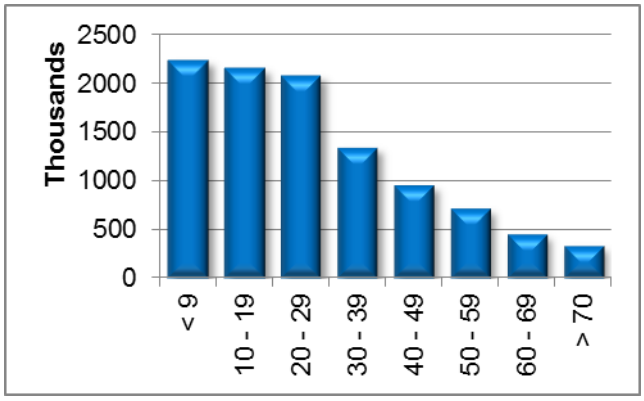


Figure 4: Gender Profile
Source: Stats SA 2011

Age Profile

The majority of the population in eThekwini Municipality is still very young falling within the 0-29 year age category. The 60-70 and above year category constitutes a small percentage of the entire population.

A relatively young population implies a high dependency rate on the working population to meet the needs of this young population. As such there is significant pressure on the working population to take care of the youth and the elderly. To further exacerbate the problem, not all the people within the economically active category are employed.



Age (Years)	
< 9	2240668
10 - 19	2158370
20 - 29	2083313
30 - 39	1341855
40 - 49	953722
50 - 59	709965
60 - 69	447006
> 70	332371

Figure 5: Age Profile
Source: Stats SA 2011

Vulnerable Groups

Within the eThekwini Municipality, reside groups of people with specific needs. These groups are referred to as Vulnerable Groups. The eThekwini Municipality recognised and acknowledged that these groups of people should be treated with the dignity that they deserve and as such has initiated the Vulnerable Groups Programme. The IDP has identified the following groups as vulnerable:

- People with disabilities
- Children
- Elderly
- Homeless
- Refugees
- People suffering from incurable diseases like HIV/AIDS
- Youth
- Women

As part of this programme and in line with Plan 4 of the IDP, a vulnerable groups policy has been developed. The Vulnerable Groups Policy aims to create a framework for social integration that serves to develop a society and workplace that addresses human diversity and participation for everyone.

Education Profile

29% of the eThekwini Municipal population has some secondary education, 19% of the population has some primary education, 4% has no schooling and 4% is unspecified meaning they are functionally illiterate in that they either do not have school-based education or have not received sufficient school-based education to acquire marketable skills and engage in serious business ventures. 26% of the population has secondary education (grade 12/standard 10) while only 8% of the population have tertiary level education.

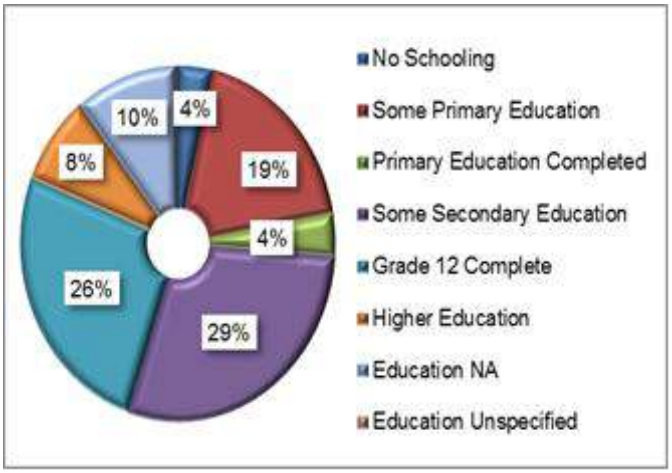
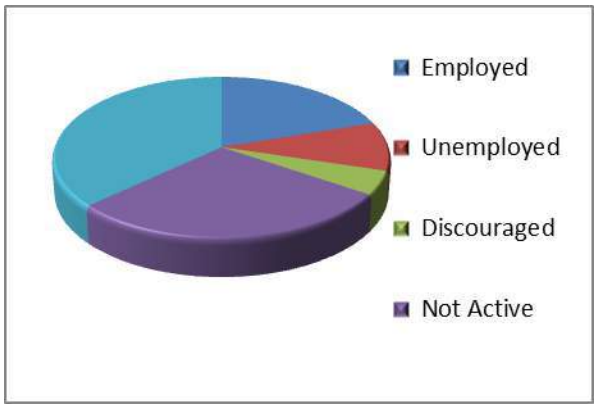


Figure 6: Education Profile Source: Stats SA 2011

HIGHEST EDUCATION	
No Schooling	720792
Some Primary Education	2540146
Primary Education Completed	471590
Some Secondary Education	2723785
Grade 12 Complete	1934764
Higher Education	551452
Education NA	1308153
Education Unspecified	16629

Employment Profile

An extremely high percentage of the population is not economically active. This also means high dependency ratios on household heads with low income levels. Despite the diversified nature of the local economy, unemployment in the municipal area is of concern as only 992560 of the total labour force are employed. The unemployment rate is currently estimated at 430319 of the population while 873583 of the total labour force are not economically active.



Employment Profile	
Employed	992560
Unemployed	430319
Discouraged	114229
Not Active	873583
Employment NA	1031671

Figure 7: Employment Profile
Source: Stats SA 2011

Household Income

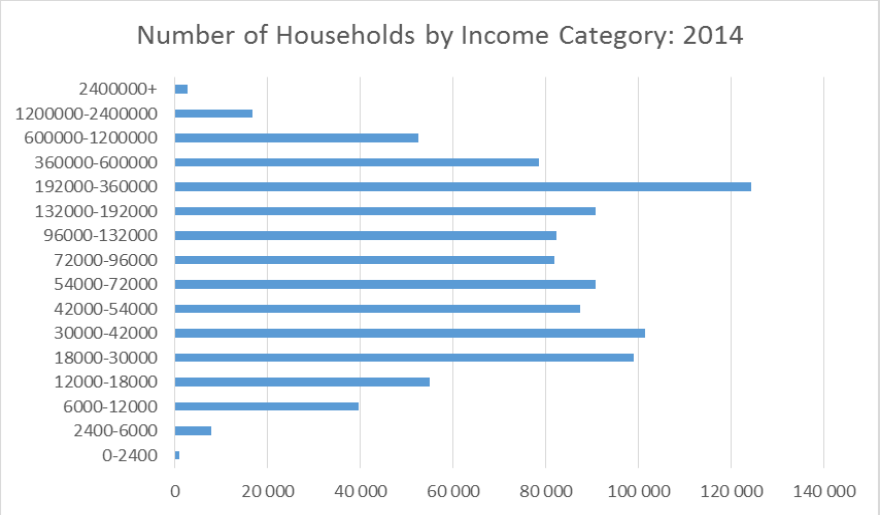


Figure 8: Number of Households per Income Category in 2014
Source: Stats SA 2011

Income Category	Number of Households
0-2400	897
2400-6000	7 932
6000-12000	39 663
12000-18000	54 957
18000-30000	98 927
30000-42000	101 557
42000-54000	87 528
54000-72000	90 856
72000-96000	81 960
96000-132000	82 279
132000-192000	90 882
192000-360000	124 462
360000-600000	78 529
600000-1200000	52 494
1200000-2400000	16 694
2400000+	2 658

Migration and Urbanisation Trends

The eThekwini Municipality (EMA), like all developing world cities, is subject to high rates of in-migration from rural areas and small towns in KZN, other parts of South Africa and other parts of Southern Africa. This has resulted in a rate of urbanisation and population increase that is difficult to project, and a large number of new residents requiring housing and services.

The eThekwini City Density Strategy (2013) estimated that “at a growth rate of 1.1% p.a, the population of the EMA will grow to 4.4 million by 2030, an additional 775,000 people. However, global trends indicate that a projection of 1.1% annual growth might be too low. “Cities across the world now accommodate 3.5 billion people or fifty percent of the worlds’ population. By 2050 they will accommodate 6.4 billion people or over 70% of the world’s population.” (City of Melbourne, 2010; quoted in the Built Environment Performance Plan, eThekwini 2015)

African Cities are generally dynamic and have fast-growing populations, and eThekwini is no exception with the majority of this growth happening on the urban periphery where it is easier to access land. With such rapid growth, city development will need to be significantly accelerated to adequately address this challenge.

Migration of population to eThekwini is an important contributing factor to population growth. The table below reflects the extent of in-migration and out-migration within Durban from 2001 to 2011.

Table 4: Extent of Migration 2011 (adapted from Posel, D. 2015: Micro-data analysis of patterns and trends in eThekwini Municipality (Durban))

IN-MIGRATION	
Percentage of the City's population who are in-migrants	8.1
Number of in-migrants	276 988
OUT-MIGRATION*	
Percentage of all migrants who migrated from the City	3.4
Number of out-migrants	193 222
NET MIGRATION*	
Number of net migrants into the City	83 766

Source: South African Population Census, 2011 (10 percent sample).

Notes: The data have been weighted to represent the South African population. Migration is defined as changing the municipality of residence. *The extent of out-migration is considerably under-estimated in the table because 34 percent of individuals identified as migrants did not specify their previous municipality of residence. As a result, the extent of net migration is also only a very approximate estimate.

In-migrants are those individuals who were not living in the City in 2001 but are now residing there. Out-migrants are those individuals who were previously living in the City but have since moved out of the Municipality. According to Posel (2015), the extent of migration to Durban (8.1%) is relatively low in comparison to Johannesburg and Cape Town which has experienced in-migration of 19% and 12% respectively.

According to Census 2011 the province that provided most migrants to eThekwini was KwaZulu-Natal. Considering other sources besides KwaZulu-Natal, the largest source of migrants (39,500) was from outside the country. The next largest source was the Eastern Cape (38,500) followed by Gauteng (24,300). Many of the migrants are taking up residence in informal settlements and in the case of migrants from outside South Africa 15% reside in informal settlements and as many as 35% of the migrants from the Eastern Cape live in informal settlements. Migration has implications for the labour force, social services, infrastructure, housing and basic household services backlogs.

Growth in the north of the EMA reflects the trend of the physical divide between employment and population density: "Most jobs in the manufacturing, warehousing and transport industry are located in the centre, south and west of the municipality but a large number of workers live in the north. Vacant land for low-income settlements has predominantly been identified in the north. The long distances between residences and employment need to be addressed".

Future economic and residential growth in the North of eThekwini has been planned for around the Dube Trade Port, however it is also critical that growth anticipates and aligns with the needs of the city's immediate municipal neighbours to the north; Ndwedwe and KwaDukuza. A significant component of the northern labour pool exists in the form of migrant labour from these municipalities, and the co-dependencies between

Ndwedwe, KwaDukuza and eThekwini should be carefully and cooperatively managed. The same is true of many residents of the city's southern and western neighbours, many of whom have secondary economic dependencies on the metro or are migrating between a rural home and the city of Durban on a weekly basis.

The Rural Development Strategy that is underway suggests that due to urbanisation and in migration, people commute to the city centre to access job opportunities. This is due to easy access to affordable land and free services. The influx of people in rural areas has led to urbanisation in areas that were deemed rural and were serviced as rural settlements. The assumption was that these areas use on site sanitation because of the large site sizes and were therefore only provided 300 litres of water in a standpipe per household. The current reality has changed for a number of areas that are still regarded as rural in eThekwini (by virtue of land ownership) with densities of up to 30 dwelling units per hectare. This phenomenon is increasing pressure on the existing infrastructure and impacting on quality of life.

All of these considerations must be built into the spatial, economic and social planning for the eThekwini Municipality to ensure a realistic approach to managing its migration and urbanisation challenges.

2.2 Spatial Context of eThekwini Municipality

2.2.1 Major Land Uses, Settlement Pattern and Urban Form

The eThekwini Municipality accommodates a wide range of land uses including formal and informal, urban and rural settlements and these are complemented by economic, transport, public and social infrastructure. Other prevalent land uses include agriculture and traditional settlement. A large part of the municipal area is also designated as part of the metropolitan open space system.

About 68% of the Municipal area is considered rural, with pockets of dense settlement. About 10 % of the rural areas comprise commercial farms and metropolitan open space and about 90% of the rural area is defined by its geospatial features, such as hilly, rugged terrain, dispersed settlement patterns in traditional dwellings and communal land holdings under the Ingonyama Trust. This institutional arrangement is unique to the eThekwini Metropolitan Municipality and presents a number of challenges particularly with respect to land, planning and urban management. The remainder of the municipal area, approximately 32%, is urban and is dominated by residential, commercial/office and industrial land uses. The economic land uses, located in closer proximity to the N2 and N3 are unevenly distributed throughout the Municipality and separated from the higher density residential uses.

The concentration of dense residential uses in the Central (Umlazi) and North regions (INK) and the significant economic and residential uses in the Central Metropolitan Region has resulted in an urban form with a clear separation of residential uses from economic uses. This implies that there are few employment opportunities where people live, and that economically active residents must commute long distances at great cost in terms of time and financial resources.

There is a concentration of more intense uses in the Central and North planning regions, and by comparison, relatively low-intensity of use in the Outer West and Southern Planning Regions. The Central Region represents the urban core of the EMA. It has significant economic, residential and servicing capacity and

thus presents an opportunity for densification and because of its servicing capacity can support higher thresholds for a range of services, industry and public transport. While the Northern Region is seen as the growth path of the EMA, portions of the South and Outer West regions also offer, albeit limited, opportunities for expansion and growth.

In addition, large numbers of informal settlements are scattered across the city, many in peripheral locations or on steep land or flood plains, placing them at higher risk of erosion and flood damage.as indicated in the figure below This requires that urgent attention be given to addressing the housing backlog and a key spatial challenge is to identify residential opportunities on land that is well located, serviced and with good access to public transport as well as social and economic opportunities.

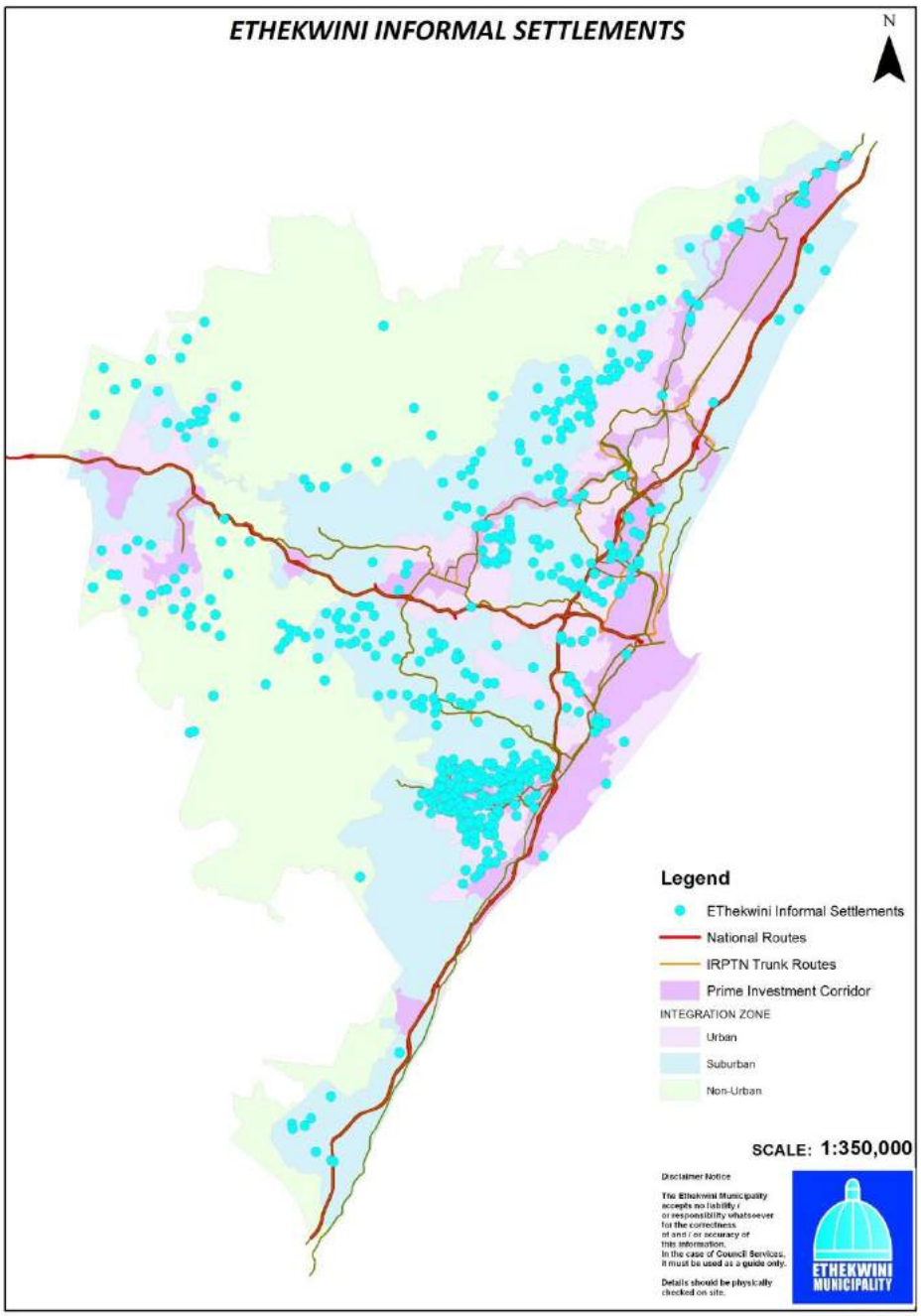


Figure 9: eThekwini Informal Settlements

2.2.2 Vacant Land and Land Claims

A map indicating the location of Public Owned Vacant Land and its distribution across the city as shown in Figure 9 below, shows that small pockets of vacant land are scattered across the city and that there are few opportunities to use state land to address the housing backlog or provide significant investment opportunities. Although all potentially environmentally sensitive / undevelopable land has been excluded from this map, it should not be assumed that this land is available or appropriate for development without first determining its status, intended development and/ or following due planning process.

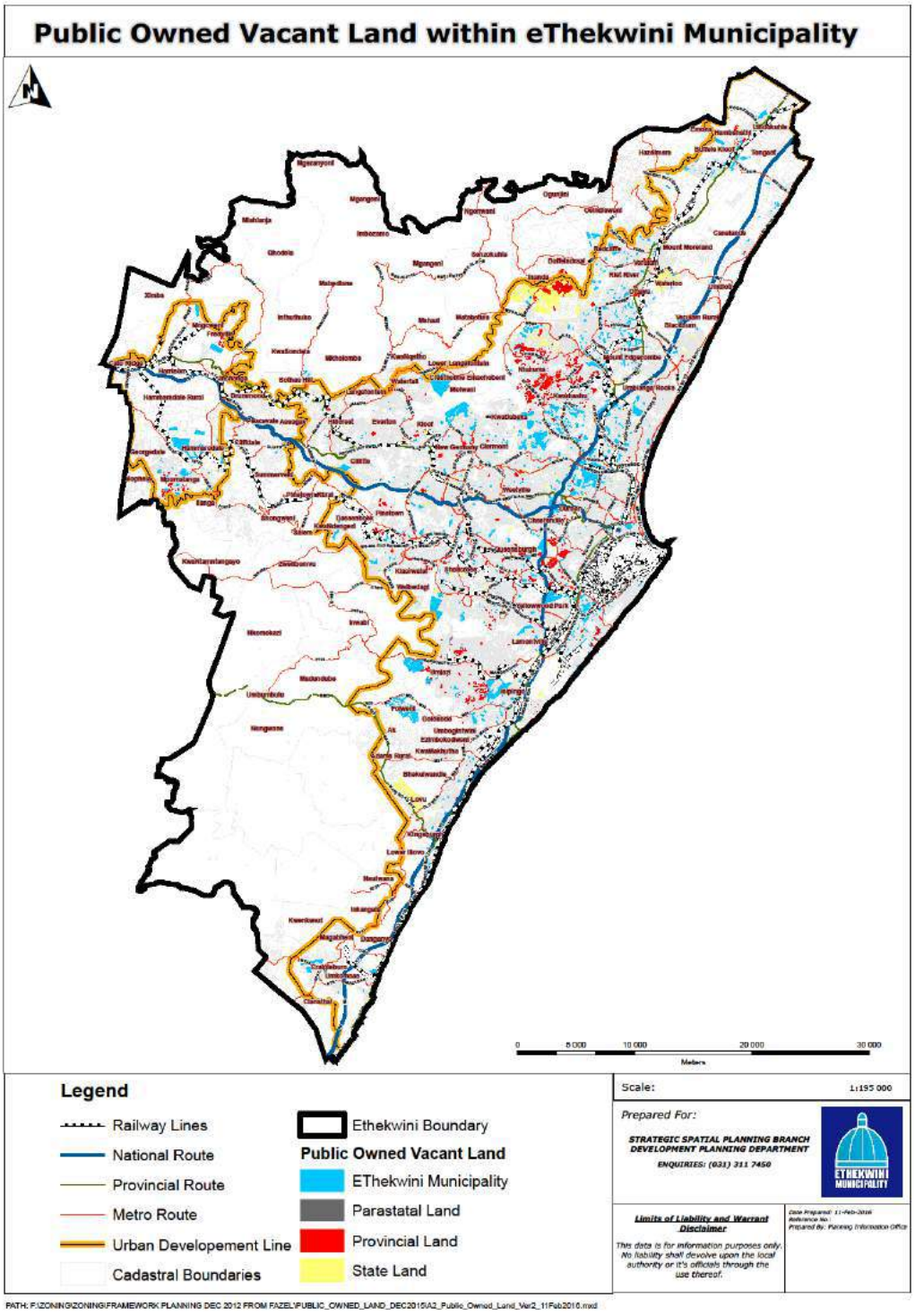


Figure 10: Public Owned Vacant Land in eThekwini

Status of Land Claims Land Restitution Act

The Land Restitution Act of 1994 introduced a three tier land reform policy to redress the historical injustice of land dispossession, denial of access to land and forced removals by:

- Land Restitution to restore land or provide financial compensation for people
- Land Redistribution
- Land Tenure reform

Land Restitution

The Land Restitution Act of 1994 was for people or communities who lost their property as a result of apartheid laws or practices after 1913. They were invited to submit claims for restitution for the return of land or by financial compensation. At the end of March 1999, 67 531 claims by individuals or communities were lodged. 72% of the claims were urban and the remainder rural.

There were mostly financial claims for urban claims from victims of forced removal. A total compensation R1.2 billion was paid by December 2002. The restitution for rural claimants was processed by the return of land. Approximately 571 232 hectares were restored at a cost of about R442 million by December 2002. The intention of the government was to complete all the land claims by 2005. The figure below represents all land claims settled in the eThekwini Municipal area as of March 2016. A total of 34 urban land claims with financial compensation were settled in the eThekwini Municipality

The Restitution of Land Rights Amendment Act was passed by the National Assembly and National Council of Provinces on 30, June 2014 to extend the claims lodgment period.

Land claims also featured in the 2016 State of the Nation Address with 120 000 additional applications having been lodged by those that missed the 1998 deadline. Figure 11 below indicates the location of these land claims within the eThekwini Municipality as of February 2016 as provided by the Department of Rural Development and Land Reform.

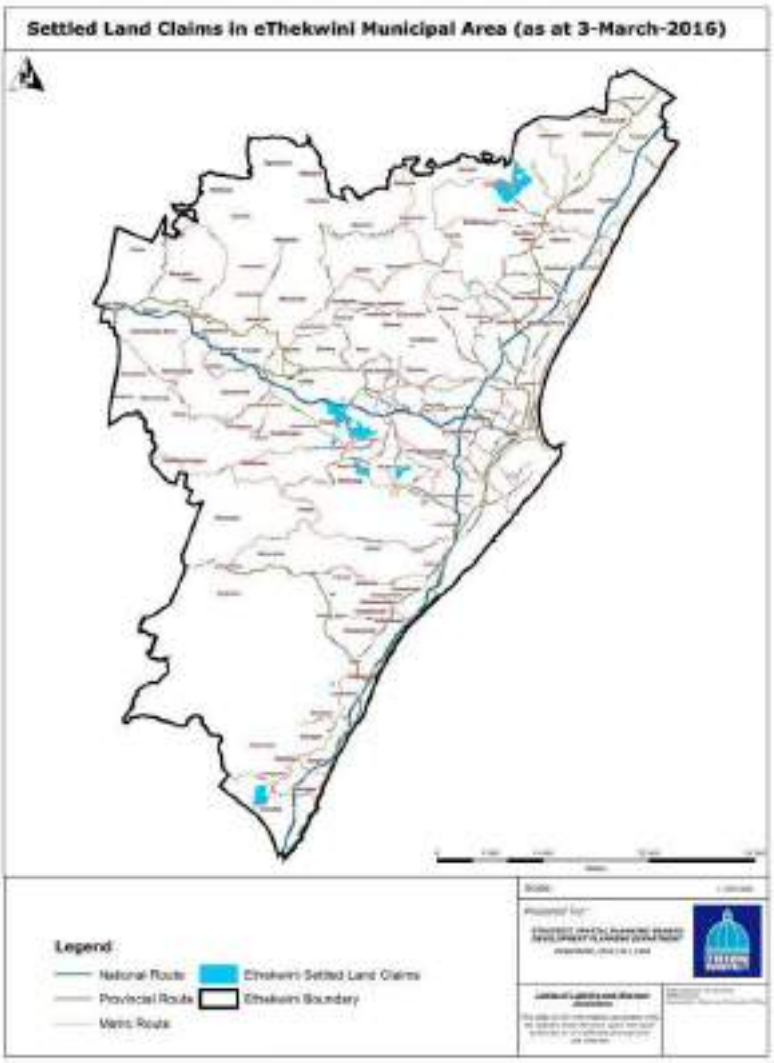
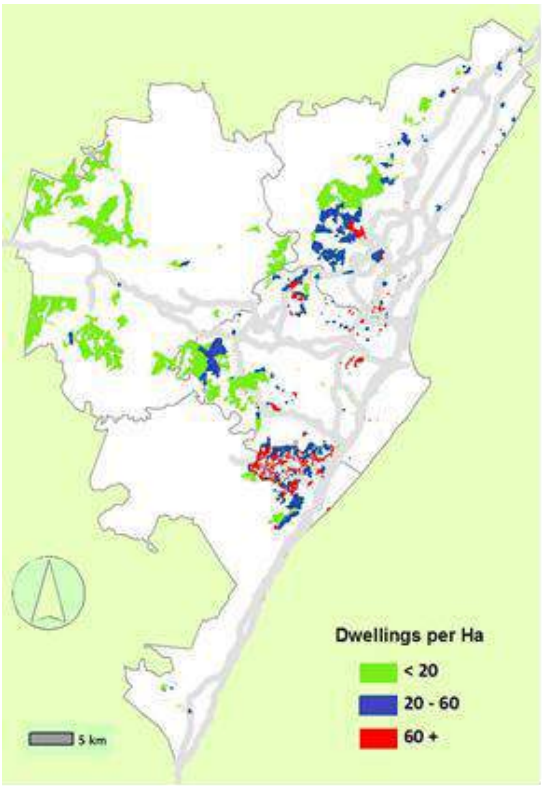


Figure 11: Land Claims in eThekwini

2.2.3 Current Density Distribution/Settlement Patterns & Trends

International trends show that the level of population density tends to decline from the City Centre. The pattern in South African cities and eThekwini is no exception and, runs counter to this trend, with population densities rising with distance from the city centre (as the figure below demonstrates) resulting in the poor and marginalised being located at some distance from the city centre. The current distribution of density in eThekwini reflects the Apartheid spatial planning legacy and the distribution pattern is similar to other South African cities:

- a fragmented city;
- limited variations in density levels across the metropolitan area;
- large areas of low density in central, well-serviced locations;
- large areas of high density on the urban periphery





The overall metropolitan density of the eThekwini Municipality is 4du/ha. Densities in excess of 40du/ha are located in scattered pockets across the city and these are limited to the Durban CBD/Beachfront; Cato Manor, Umlazi and KwaMashu/Inanda. Density is concentrated within the former townships of KwaMashu, Ntuzuma, Inanda and Phoenix in the north, Umlazi, Lamontville and Chatsworth to the South, Clermont/KwaDabeka and Marianridge in the West and the Durban CBD/Beach, Glenwood, Berea, Cato Manor in the Central areas. The remainder of the metropolitan area is settled at densities less than 15du/ha. This includes areas such as Durban North, Westville, Pinetown, Mpumalanga, Tongaat and Verulam. The settlement pattern also reflects the rural/traditional periphery of eThekwini where residential densities are with some exceptions below 5du/ha. The following map represents the key characteristics of residential densities within eThekwini Municipality:

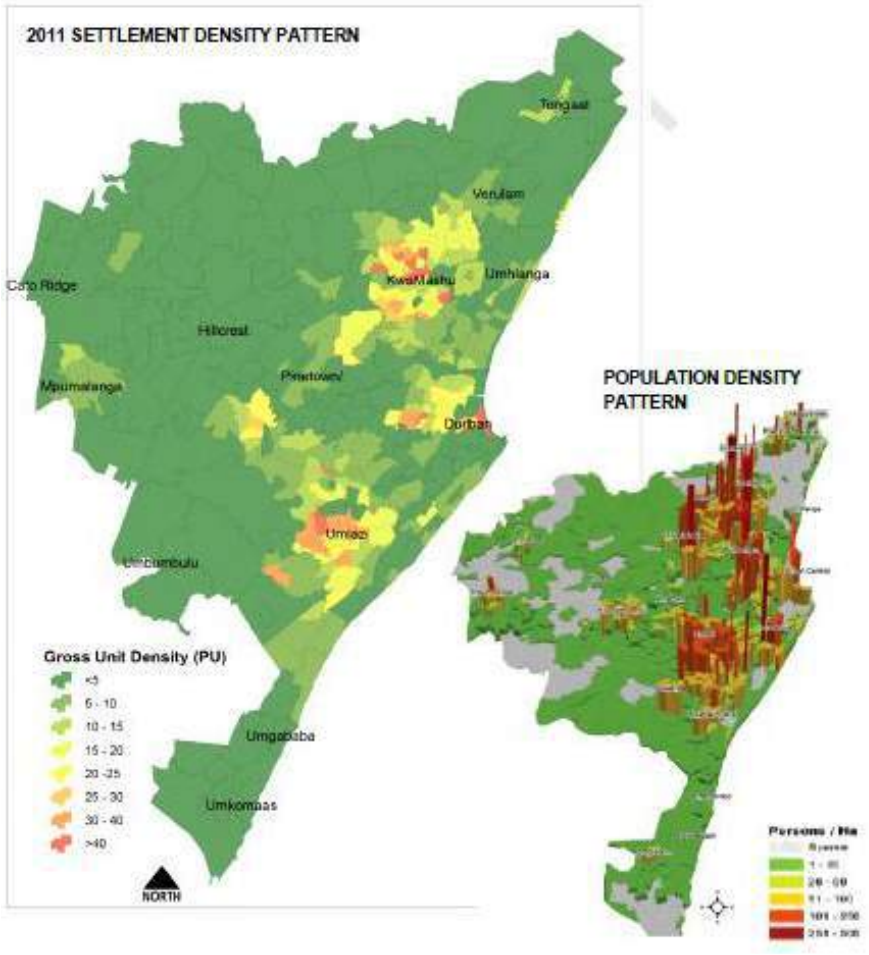


Figure 12: Settlement Density Pattern

These density characteristics have important implications for where people may wish to settle, (whether formally or informally); commuting patterns; public transport and the provision of basic services and social facilities. The existing fragmented urban form of the Municipality coupled with low density dramatically affects the access which residents can enjoy to places of residence, employment and social facilities. Fragmentation of the metropolitan area can threaten its potential as an economic engine, and social and environmental problems in any one part of the urban area can stunt overall metropolitan growth. Because of the self-reinforcing nature of this kind of spatial pattern, fragmentation and low density settlements can both be attributed to and result in the following:

- Long commuting times (average for the majority of eThekwini commuters is 2 hours return). This in turn impacts negatively on labour productivity and results in high transport costs.
- High infrastructure costs associated with extending infrastructure to new locations resulting in high costs per dwelling for pipe runs, road lengths; high costs per dwelling for maintenance and operations. Developing outside existing areas results in unused infrastructure capacity in existing areas.
- Impacts on higher order social and economic facilities require large geographic catchments, the consequence with developing in fragmented locations results in new facilities being located far away from much of the population.
- Underused public space in existing areas, which contributes to security and urban quality issues.
- Environmental degradation through high energy requirements of transport.
- Challenge to quality of life and to long-term sustainability.

Overcoming fragmentation and low density would work towards diminishing or reversing these negativities, and assist in achieving spatial integration, social inclusion and increased diversity of class and urban form.

2.2.2.1 Density Trends

It is evident in comparing the EMA density pattern of 2001 to that of 2011 that there has been a change in the distribution of density. As the following map which shows the percentage change in gross density for metropolitan area illustrates:

- Density within the traditional suburbs of Berea, Montclair, Pinetown, Phoenix, Westville (inner core) etc has remained stable.
- Density in the rural periphery has doubled
- Density has increased threefold in greenfield development areas such as Hillcrest, Mt Edgecombe, Umhlanga and Welbadacht.
- Density along the backbone of the IRPTN has either decreased, or is stable.

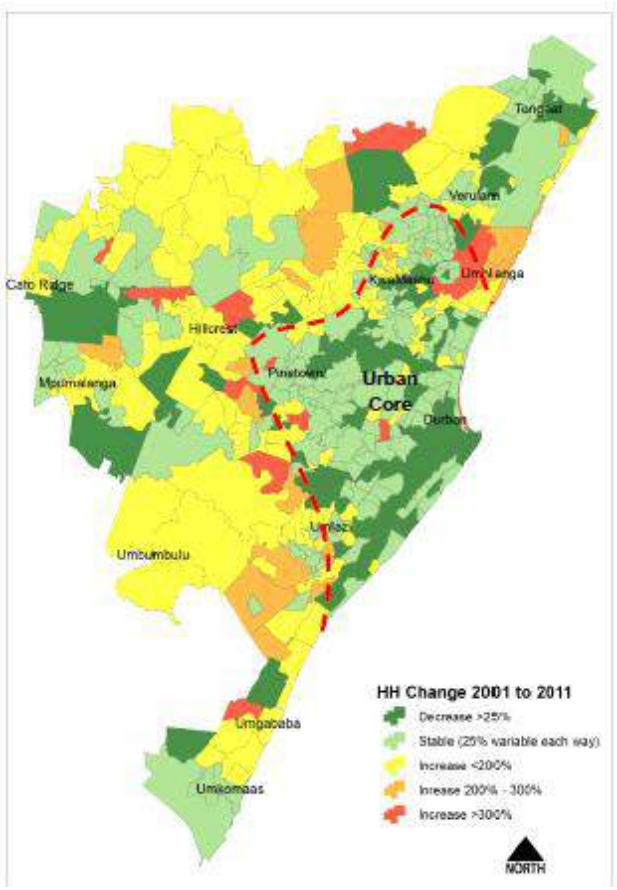


Figure 13: Density Trends (2001-2011)

An interrogation of the reasons for this pattern provides invaluable insight for the preparation of a strategy to manage density.

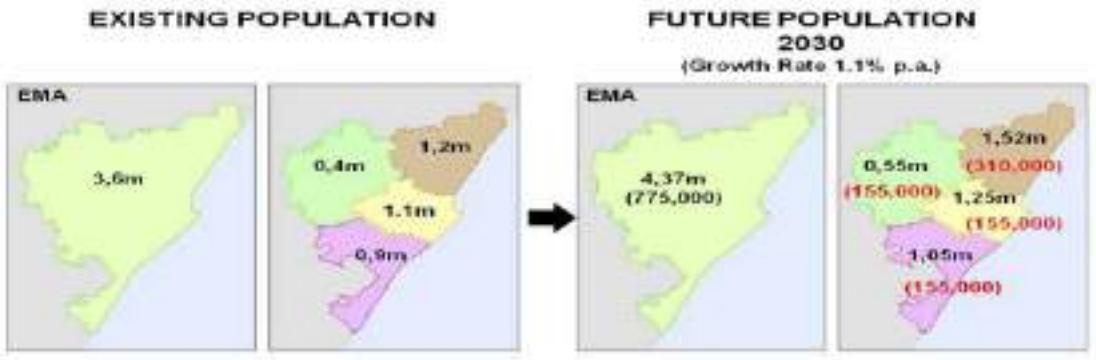
- The rural areas in particular offer a “soft” landing for migrants into to the municipal system. Here the barriers to acquiring land to settle on, and the regulations regarding the development of land, are far less onerous than within the formal urban system where available land is not readily available. There is also anecdotal evidence of residents choosing to invest in rural areas where property taxation and

servicing costs are minimal compared to land under formal land legal administration. Also developing in these areas is a cultural choice.

- Municipal investment in servicing backlogs has been directed into these areas on the past decade.
- Corporate decisions by major land owners e.g. Tongaat Hullet Developments and Luke Bailes etc to transform former sugar cane land to urban development have resulted in a plethora of new housing opportunities, with a particular emphasis on high quality managed and secure neighbourhoods that are under threat in existing neighbourhoods. This has resulted in a push of residents to emerging edge cities.
- The municipality's housing programme has been unable to secure well-located land at reasonable prices and has been forced to deliver large-scale greenfield housing projects on the periphery of existing settlements.

A number of density patterns, both current and in terms of trends, are evident in eThekwini, each of which is a product of a number of constraints and/or incentives. These constraints and incentives are either implicit (hidden) or explicit (clear).

The population growth estimates and migration trends in the city translates to approximately 193,000 new residential units, with the northern region anticipated to grow at a faster rate, and if left unchecked, will continue to contribute towards sprawl and urban inefficiency. It is important therefore that the city influences the "distribution of growth and density within the municipal boundary away from the urban periphery to ensure sustainable resource use and the creation of sustainable human settlements. The scenarios listed below demonstrate how higher densities on well located land can contribute towards more sustainable use of land resources across the municipal regions.



	GROWTH	RESIDENTIAL LAND REQUIREMENTS		
	2030	**Low**	**Medium**	**High**
EM AREA	*New Units*	*1-15 du/ha*	*15-40 du/ha*	*80-150 du/ha*
Central	38 600	2 573ha	965ha	257ha
South	38 600	2 573ha	965ha	257ha
North	77 200	5 147ha	1 930ha	515ha
Outer West	38 600	2 573ha	965ha	257ha
Ethekwini	**193,000**	**12 867ha**	**4 825ha**	**1 287ha**

2.2.4 EThekwini Spatial Regions

New and emerging planning and development requirements, as determined through various pieces of national and provincial legislation, require that planning systems within local municipalities are regularized and are updated in a manner that will result in an improved spatial re-organisation of the municipal area. Specifically, the systems and approaches adopted should begin to redress the adverse effects of apartheid and separate areas planning, as well as social, economic and environmental sustainability.

As such it has been necessary for the eThekwini Municipality to develop a spatial planning approach that is consistent with legislation but also which is appropriate to the management requirements of a metropolitan Municipality. As part of the Municipal planning process and system, the Municipal area has been divided into four functional areas, namely, the Central Municipal Planning Region (CMPR), South Municipal Planning Region (SMPR), West Municipal Planning Region (WMPR) and North Municipal Planning Region (NMPR). The functional boundaries of these regions are defined by the Umgeni River, the Umlazi River and the Kloof Ridge and are catchment based. The following map represents the abovementioned spatial planning regions.

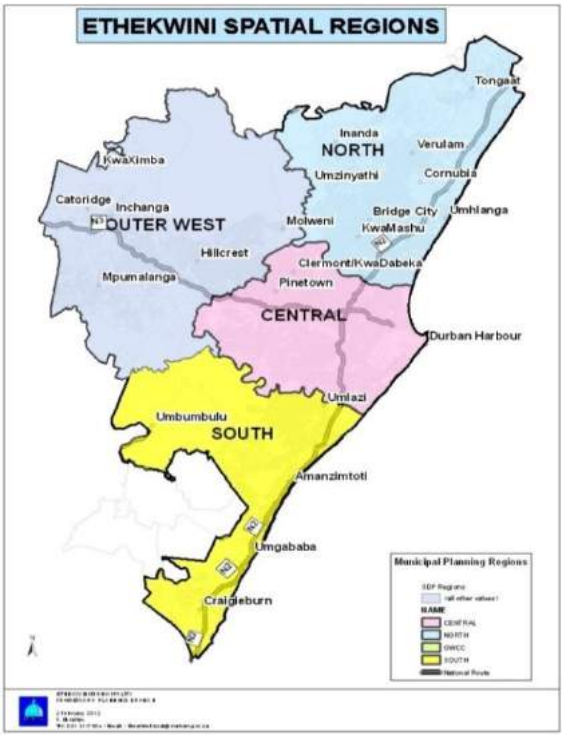


Figure 14: eThekwini Spatial Regions

The regions and their respective roles are summarised below:

2.2.4.1 Northern Spatial Planning Region

The Northern Municipal Planning Region (NMPR) stretches from the northern banks of the Umgeni River in the South up to and including Tongaat in the North, from the coast line in the east to UMzinyathi, Inanda and border with the ILembe District Municipality in the West and North. This is a total area of 59, 764 ha which represents approximately 26% of the EMA. The role of this region within the broader municipal area is as follows:

- it provides a logistics support
- it has significant residential, commercial & services function
- specializes in coastal tourism & recreation
- it is a trade and industrial investment centre
- has significant agricultural support function

The spatial challenges which can be identified from the North SDP include the following:

- Protection of Environmental Asset

 The limited extent and fragility of the natural assets base require that they are vigorously protected, integrated into a sustainable environmental system and appropriately managed in order to adequately support the levels of anticipated development in the NMPR. In particular the coastal assets will need to be prioritised for protection and management as a vital element of the tourism and recreation base of the Municipality.
- Protection of Coastal Assets : Sea Level Rise

 The Coastal Risk Zone (CRZ) is defined as the combination of the most inland edge of the 1m sea level rise line and the slope failure line associated with 1m of sea level rise. This demarcated the Coastal Risk Zone from natural and climate change impacts and provides a broad identification of the risk area. The coastal risk zone will be refined through the process of more detailed work through the Shoreline Management Plans (SMP's) which are a legal requirement for our coastline.
- Prevent Uncoordinated Urban Sprawl

 The extent and type of growth and development anticipated in the north requires that clear directives to urban expansion are set so that sustainable urban development footprints can be established and or consolidated and that viable well located agricultural development can be promoted. It is acknowledged that the development of a Northern Urban Corridor will be key to containing urban sprawl in the North.
- Protect Lifestyle Options

 Given the levels of growth in residential development there is a need to encourage and accommodate a range of lifestyles and landscape character that will provide a choice for future residents.
- Provide New Major Transport Infrastructure

 Levels of accessibility and mobility at both the metropolitan and local level will need to be improved through expanded capacity of infrastructure and services for both public transportation and private vehicular modes of transport. The North is acknowledged as a priority area for public transportation and this is reflected in the IRPTN phasing.
- Provide Employment Opportunities in the North

 Land use patterns and location of employment zones that promote a more balanced flow of trips between home and work across the NMPR and across the metropolitan area as a whole need to be encouraged. Appropriate economic responses to the growth area around the King Shaka International Airport and the Dube Trade Port need to be prioritized.
- Protect Agricultural Assets

 Under performing agricultural areas that result in pressure for land use change need to be supported and promoted as important and viable economic and employment generators.
- Provide New Bulk Infrastructure

 Expanded capacity for waste water treatment, and for the provision of bulk water is critical.

2.2.4.2 Central Spatial Planning Region

The boundaries of the Central Municipal Planning Region (CMPR) extend from the Umgeni River, in the North, along the coast through to the Umlaas Canal in the South and extend to the escarpment in the west. The region extends over an area of 677km^2 (67772.33 ha). The role of the Central region is as follows:

- It is the urban core of Metro (commercial, retail, financial & administrative hub),
- Centered on transport activities and logistics port,
- Contributes 56% of the EMA's total GDP,
- Key Industrial hub,
- Events, Tourism and Logistics hub,
- Largest employment generator,
- Major economic sectors: Industrial, logistics, warehousing, business, commercial, retail and financial services and tourism,
- Has significant coastal resources and service nodes, and
- Offers a range of lifestyle options.

Opportunities

The major physical assets of the Central Spatial Region include its highly accessible CBD's, its well established transport infrastructure (road, rail, and port) that provide strategic national and regional linkages, an extensive industrial and commercial infrastructure, and a range of attractive physical attributes including an attractive cityscape, a favourable climate, several rivers, the sea and beachfront (golden mile), the harbour and the bay.

This region forms the cornerstone of three regional axes which lead northward to Richards Bay, southward to Port Shepstone and westward to Pietermaritzburg. As host to a key trade hub and due to the regions coastal location this arguably provides the region with a comparative advantage for the location of export-orientated activities.

Regional development corridors linking Durban northwards to Richards bay and onwards to Maputo, and westward to Pietermaritzburg and onwards to Johannesburg are key regional spatial planning tools that build up the competitive advantage of the CSR by exploiting the manufacturing, trade and tourism resources found within this region.

Infrastructurally this region has the most capacity to extend services and promote further development in regard to densification and redevelopment initiatives within the context of sustainability. Being the largest employment generator within the EMA, this region's also contributes to the largest percentage (56%) of the EMA's GDP. The region also has a large reservoir of manpower in terms of its current labour force and could potentially provide opportunities for further job creation.

Challenges

The constraint on land in the central area, particularly for residential development, has resulted in a significant thrust for development in the north (and to a certain extent in the west). This growth has

manifested in a push for the location of commercial and key community facilities in the adjacent regions where access to or availability of commercial and major community facilities is limited.

Residential densities in the Central Spatial Region have largely been characterised by low density settlements which have been informed by apartheid planning which created a spatial form that was racially structured, highly fragmented and poorly integrated. Urban sprawl as manifest in this region only exacerbates an inefficient public transport system largely due to low thresholds resulting from low densities around the core areas (CSR) and outward sprawl that makes it difficult to provide affordable and effective commuter transport systems. Furthermore due to the excess infrastructure capacity available in this region, opportunities for densification present a challenge due to limited space actually available for development.
Many of the natural resources within the Central Spatial Region are under threat from the continuous development growth and pressures. A disregard for environmental systems reduces opportunities for creating a system of open space which supplies important ecosystem goods and services to the citizens of Durban.

In areas such as the South Durban Basin the ability of such an ecosystem to assimilate pollution is being exceeded. The lack of basic services (water, sanitation and electricity) in informal areas has also put strain on the natural resources. (Durban South Basin SEA: Fully Integrated Report: August 1999 (CSIR ENVIRONMENTTEK))

The limited extent and extreme fragility of the natural assets base require that they are vigorously protected, integrated into a sustainable environmental system and appropriately managed in order to adequately support the levels of anticipated development in the CSR. In particular the coastal assets will need to be prioritised for protection and management as a vital element of the tourism and recreation base of the Municipality.

Infrastructure limitations in the Central Spatial Region as it relates to the Port capacity may arrest economic expansion which translates spatially into pressure between the interface of the port and the city.

2.2.4.3 Southern Spatial Planning Region4

The Southern Municipal Planning Region (SMPR) extends from the northern boundary consisting of the Umlazi River and the Umlaas Canal to the UFudu Escarpment and the EziMbokodweni River in the north-West to the Western and Southern boundaries of the eThekwini Municipality. The southern region is in extent of 510km². It abuts in the north onto both the central and western metropolitan planning regions. In the west the South MPR shares a common border with UMgungundlovu and UGu District Municipalities. The South MPR is made up of the previous South Local Council area, containing a series of earlier local municipalities, and significant areas added to EThekwini during the recent re-demarcation. The latter areas formed previously part of the KwaZulu homeland structure. The role of this region is as follows:

- it has a large residential population,
- it has some of the Provinces leading economic sectors,
- has existing Coastal Tourism and has potential for expansion,
- has potential to diversify/intensify existing agricultural uses,

- has the largest tribal areas within the Councils area of jurisdiction.

Landscapes and developments consist of a continuum of components and therefore separating lines, such as the identification of a South Metropolitan Planning Region, represents an artificial separation acceptable only as a convenience in terms of manageability.

While therefore the South MPR forms an integral part of the Metro and while it contains significant components of metropolitan significance, it also accommodates unique developments, and even more so, unique opportunities for future development.

Opportunities

The initial strategic assessment suggests in broad terms inter alia major development opportunities in terms of:

- Major tourism and recreation opportunities both in coastal as well as unique inland areas
- Significant agricultural development opportunities in the rural western parts of the South,
- Providing a progressive “ladder” of accommodation, activities and opportunities for the entire income range of the population,
- Providing opportunities for the expansion of a range of economic development necessary to support the growing population.

Challenges

There are however also significant challenges for the development of the South MPR including issues such as:

- Finding ways of better integrating the rural communities of the area occupying over 50% of the South,
- Creating a better balance between the built and the natural environment,
- Protecting, rehabilitating and appropriately managing the natural resources of the South,
- Improving significant portions of the existing built environment, in particular conditions in lower income communities,
- Improving pre-conditions for the better integration of large population groups into the economic development opportunities of the area,
- Facilitating the creation of significantly more employment opportunities for the population of the South,
- Providing better physical linkages between the South and the remainder of the Metro

In addition, the southern region is going to receive four wards of Vulamehlo Local Municipality. Wards one, two, three and ward four will form the new eThekwini boundary. The southern region will inherit an area of social investment need. This will mean planning for and streamlining the current disparities of levels of basic services in areas previously under Vulamehlo Municipality. Vulamehlo Municipality is characterised by a predominantly rural settlement pattern and is under traditional authority. The landscape of Vulamehlo is characterised by valleys and river systems; rugged; steep and hilly terrain. This fragmented topography has influenced the extent of development expansion and has also dictated the scattered pattern of settlements found in the area

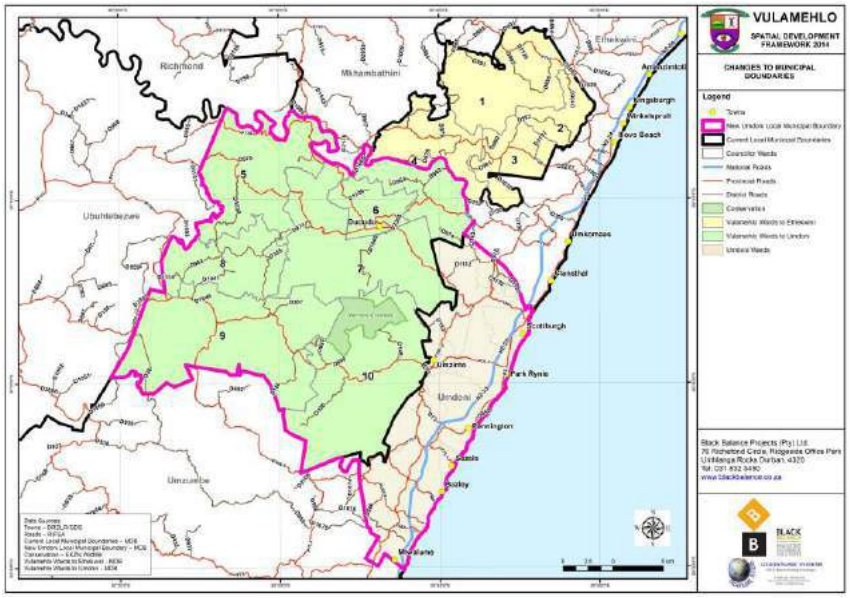


Figure 15: Areas of Proposed Demarcation

2.2.4.4 Outer West Spatial Planning Region

The Outer West planning region is approximately 78 438ha in extent, representing 34% of the municipal region. A large part (50%) of the Outer West region comprises traditional areas. A major portion of the metropolitan open space system (50%) which requires protection is found within this region.

The role of this region is as follows:

- it is an Environmental Management Priority Area
- provides opportunity for strategic Industrial Expansion and hence employment opportunities
- has potential for tourism related opportunities.

The existing spatial structure of the Outer West can be summarised as follows:

- Extent and quality of natural assets make the area a high priority environmental management area
- Fragmented and un-articulated open space system will reduce ecological viability
- Poor inter linkages between different settlements and communities resulting in inefficient and inconvenient travel patterns
- Under provision of community and commercial facilities in rural areas resulting in inconvenience and lack of productivity
- Dominant land owners are drivers for new developments that are not always consistent with municipal priorities.
- Large under serviced informal settlements and developments on traditional land resulting in poor living conditions and pressure on the natural environment and social and health challenges.
- High risk generated by informal settlements being in vulnerable locations, could result in the municipality refusing to provide services that will consolidate a settlement, but leads to prolonged situations of poor environmental standards if alternative land is not immediately available.
- Low densities and fragmented settlement pattern with low thresholds for efficient service delivery
- Low densities, fragmented settlement pattern and low incomes with resultant low thresholds for viable commercial nodes and service points

- Poor linkages from rural and informal settlements to metropolitan transport links and to metropolitan facilities and services resulting in inefficient costly travel patterns, inconvenience, lack of productivity, social/family impacts.
- Diminishing capacity of major road transportation corridors to serve the metropolitan area from an economic point of view.
- Under-performing agricultural areas resulting in pressure for land use change and impacts on food security.
- Property Rates Policy encourages uniform development of the City.
- Imbalance between availability of and location of employment opportunities in relation to economically active population.
- Short term market pressures and rapid development may prejudice long term sustainable planning objectives.
- Inadequate and outdated policies and zoning will encourage the illegal use of land which will further negatively affect infrastructure capacity

2.2.5 Neighbouring Municipalities

The eThekwini Municipal Area (EMA) is bordered by three district municipalities, namely, iLembe in the north, UGu in the south and uMgungundlovu in the west. These are shown in Figure 15 below:



Source: PGDS presentation by COGTA

Figure 16: Provincial Context of EMA

The eThekwini Municipality is a key growth point that serves the region. It therefore needs to be aligned with the spatial development frameworks of neighboring municipalities. The alignment with neighbouring municipalities is necessary in order to:

- prevent conflicting initiatives and land uses being implemented on opposite sides of a boundary
- ensure an aligned regional vision with regards to the region's infrastructural development to allow governments to take advantage of comparative advantages offered within an area. This also refers to cross border provision of services such as education facilities which can be utilized by communities

residing in two municipalities. This allows for cost effective provision of services and is applicable to the provision of civil services, social services and economic opportunities.

2.2.5.1 Cross- Municipal Boundary Planning Engagements

The municipal SDF directs and guides strategic investments that are developmental and beneficial both within eThekwini and across neighbouring municipalities. Given the importance of eThekwini to the economic growth of the region and the need for coordinated and integrated cross boundary planning, the eThekwini Municipality, through its planning department, has spearheaded the establishment of three cross boundary fora. One in the west, with Mkhambathini Local Municipality, one in the north addressing the development concerns and alignment with ILembe District Municipality and one in the south to deal with the imminent incorporation of Vulamehlo from the Ugu District Municipality into the eThekwini Municipality in 2016. To this end, a number of cross border planning and alignment meetings have been held on an on-going basis.

The municipalities have agreed that the areas that need joint planning and alignment include the IDP, SDF, GIS, environmental frameworks and joint consideration of Development Applications and Proposals in addition to the need for sub-regional planning and entering into agreements for the sharing of infrastructure services and resources.

For the first time, an attempt has been made to map all the SDF's of the neighbouring municipalities and evaluate the implications of each of the SDF's on the other (refer Annexure 8). Clearly there are areas of spatial alignment as well as non-alignment for example, corridors in ILembe end on the boundary of eThekwini Municipality with no corresponding corridor planned in the eThekwini Municipality. The spatial mapping exercise, although challenging in terms of data available, does highlight the need for the planning of municipalities to be more outwardly focussed and to recognise and understand the functional linkages and interdependencies between different neighbouring municipalities. It will certainly provide a good basis for further discussion and possibly collaborative planning.

A summary is given below of municipalities bordering eThekwini with their key planning issues as they relate to the eThekwini Municipality:

Table 5: Summary of planning issues with municipalities Bordering eThekwini

DISTRICT MUNICIPALITY	LOCAL MUNICIPALITIES THAT SHARE A BORDER WITH EMA	CROSS BORDER ISSUES
ILembe Municipality Local municipalities that are within iLembe include the following: • KwaDukuza • Ndwedwe • Maphumulo • Mandeni	**Ilembe Municipality** • The Regional Spatial Development Plan (RSDP, 2013) is a thirty year plan that will influence the Ilembe SDF • 2015 focus is on the rural towns of Ndwedwe, Maphumulo and Bamshela • 2016 focus is on Compensation Flats Industrial and addressing bulk water availability • The EM immediate	**Ilembe Municipality** • Lack of infrastructure identified. IM is engaging with EM for possible solutions • The Western Bypass will open up the area to development and concentrates on the P253 and P100 as linkages into the interior. • Proposes 2km development on both sides of the R102 • The RSDP identifies fertile land for food security • D'Moss will be taken into account in planning • Need to look at costs of development i.e. rates, infrastructure etc. within a 5km strip

	neighbours are KwaDukuza and Ndwedwe Local Municipalities.	abutting the municipal boundaries. • Due to high unemployment there is difficulty in building a tax base. • Employment opportunities available in KwaDukuza but not Ndwedwe.
	KwaDukuza • Is economically the strongest local municipality in iLembe • Houses the towns of Ballito and KwaDukuza (Stanger), • Within the development parameters of the Aerotropolis • Has a mix of coastal tourism, commercial, light industrial and agricultural activities. • Shares northern border with EM.	**KwaDukuza** • Vision of an economic corridor along N2 & R102, • Degree of unregulated economic and residential development may lead to conflict and competition between the municipalities. • The southern Local Area Plan underway will respond to aerotropolis planning. • Proposals at Compensation for 500ha of industrial development. This may not align with the land use planning on the EM boundary. • Based on discussions, there is general alignment with KwaDukuza Municipality and EM around the industrial land use at the boundary near Greylands. • However, the intentions of the KwaDukuza Municipality to have industrial land use across the R102 will conflict with residential land uses on the EM side as per the SDF 2016-2017.
	Ndwedwe • One of the rural/traditional/ agricultural Local Municipalities • Has poor level of services and infrastructure, • Has high unemployment, • Tongaat Hulett Developments is buying tracks of land in Ilembe • shares north western border with EM	**Ndwedwe** • Large proportion of residents in Ndwedwe employed in EM and cross boundary issues almost inseparable. • The raising of the Hazelmere Dam wall will have positive impacts for Ndwedwe • P100 offers potential for development as it can connect directly with Dube Trade Port • Poverty, unemployment, unregulated development all threatens the UDL and the environmental sensitivity of EM's northwestern border. • The lack of infrastructure has initiated discussions with EM for possible solutions. **General planning issues to emerge:** • The need to establish a common communication and co-ordination platform • Establish a cross border urban-rural management committee to address a wide range of issues include climate change with the private sector involved where applicable • Enter into MoU regarding servicing, socio-

		economic and any other pertinent issues that may arise resulting from Cross Border Spatial Planning • Factor in political leadership and buy-in for cross border planning issues • Factor in geo-political aspects inclusive of socio-economic aspects which can and may influence development realized • To hold special meetings to discuss development applications and proposals with specific reference to:- **a) Conservation Areas:-**KDM Biodiversity and Open Space Plan and eThekwini DMOSS; Future developments in eThekwini to consider KDM and iLembe environmental layers as development proposals in eThekwini may have adverse effect on KDM and iLembe natural environment and vice versa. **b) New Planned Projects:** The provision of bulks could influence influx of PDA submissions to the south of KDM where Tongaat Hullet is a major land owner **c) Infrastructure Development:** Alignment of land use planning to iLembe services provision. Possible scenarios where for example major WTW or WWTW plants are located on either municipality but service the other. This could also have an effect as such infrastructure could be susceptible to development pressures in either municipality **d) Role of settlements:** Housing plans vs housing subsidies **e) Key Development Proposals:** Wewe Driefontein Mixed Use Development and Tongaat Hullet Compensation Area **f) Influence of Catalytic Projects:** Dube Trade Port at its current state of development, DTP at 2035 and 2060 development horizon and rail transport **g) Corridors and Linkages-**PSEDS and PGDS: Role of the North South corridor in the context of the eThekwini-Umhlathuze corridor. Influence on space economy with regard to release of industrial. Need to ensure the sustainable management of industrial and residential land development between eThekwini and KwaDukuza Municipalities as well as R102. Need to strengthen East West Corridors. **h) R102:** Cross boundary engagement between the municipalities with the involvement of eThekwini Transport Authority to discuss the role and land uses along the R102 **i) Western Bypass**: Input is needed from the Provincial Department of Transport and

		eThekwini Transport Authority on the timing of the Western Bypass as KwaDukuza intends developing the R614 as a corridor linking to Wewe Driefontein. **j) Aerotropolis Masterplanning:** Involvement in the cross boundary municipalities in the development of the Aerotropolis Masterplan is important so that areas of misalignment are addressed and there is seamless alignment as per the Provincial Growth and Development Strategy. **k) M28 and M36:** iLembe has identified the M28 and M36 for Priority Infrastructure Routing. The M28 aligns with the draft Rural Develop Strategy currently underway which has identified the route as a rural corridor. The EM acknowledges the proposal for the M36 but no provision has been made in our planning to extend the corridor. The EM will investigate the links further. **l) Regional Plan:** COGTA needs to initiate a plan to consolidate development between Ilembe Municipality and EM.
UMgungundlovu Municipality Local municipalities within uMgungundlovu include the following**:** • uMshwathi • uMngeni • MooiMpofana • Impendle • UMsunduzi • Mkhambathini • Richmond	**Mkhambathini** MkhambathiniLocal Municipality existsalongside the Cato Ridge and Mpumalanga local areas of the Outer West region of eThekwini Municipality. Between the years 1996 and 2007 this Municipality has experienced an increase in population mainly because of its proximity to Pietermaritzburg and Durban which are the main centers of economy. The spatial character of the Mkhambathinimunicipality can be defined as follows: • It has always been considered as a rural and traditional Municipality. • It mainly focuses on agriculture and tourism development, however there are some industrial activities which are emerging along Umlaas road. • Agricultural production in the municipality comprise ofvegetable growth for local and hinterland fresh produce markets, maize and	**Mkhambathini** The methodology for this alignment has been the collection of data through meetings held with the neighbouring municipalities. • Meetings were held with both Mkhambathini Local Municipality and uMgungundlovu District Municipality on the 06th of April 2016 and 08th of April 2016 respectively. • It was agreed that joint planning and alignment is needed on the following areas: the IDP, SDF, GIS, and development proposals. • It was noted that there is a broad alignment in terms of both strategic planning and land use intentions (zoning), however there are elements of misalignments that are emerging at the land use level. These areas of misalignment can be attributed to new applications for zoning/rezoning, general contraventions and illegal developments. This is mainly due to the unavailability of lower spatial plans as most of the areas of eThekwini that are close to Mkhambathini (i.eGeorgedale, Sankontshe and Mophela) falling outside of the TP Scheme. • With regard to the current N3 Corridor project (SIP 2), both municipalities hold the same view in terms how it will impact on our current spatial plans and what should be done in order to minimize adverse impact. • An agreement was reached that regular engagements between the two municipalities

	sugarcane production. The area features the second highest concentration of poultry producers in the world, supported by a network of service suppliers, as well as pig and beef farming. • A number of sites with tourism potential are scattered throughout the municipality. These include the game reserves, being Nagel Dam Nature Reserve, GwaHumbe Game Reserve and Spa. • Also included are other private game ranches, like Tala Game Reserve, Mayibuye Game Reserve and wild life sanctuaries including the African Bird of Prey Centre, the Lion Park and the Natal Zoological Gardens. • There are two heritage sites identified within the borders of the Mkhambathini municipal area, being Mgwahumbe and Hope Valley. • The Umlaas Road development has adequate water supplies from the Umgeni Water pump station and reservoirs in that area, • Although a sewage works has already been constructed to accommodate immediate development pressures in Umlaas Road, a new works of R60 million has been funded (in part), designed and reticulations plans finalised to accommodate the developable area identified in the SDF expansion plans which commences in the Camperdown locality. • Development approved to date centres on Provincial main roads and are considered sufficient. ESKOM has not placed any restrictions on the supply of	will be held to address local planning and alignment issues. • The possibility of shared services was raised as an area which requires further investigation and attention.It was agreed that this would need to be explored and be facilitated by COGTA. **Planning alignment issues** • EThekwini Municipality SDF identifies Cato Ridge as a major focus for industrial expansion of Local, Provincial and National significance.Mkhambathini Municipalitywhich shares the boundary with eThekwini in the western side of Cato Ridge and Mpumalanga area, mainly focuses on agriculture, tourism and Biodiversity. • Mkhambathini Municipality plays an importantrole to ensure food security and conservation of natural resources. This implies that land use distribution and development for Cato Ridge and Mpumalanga (specifically in areas attributing the boundary of Mkhambathini) will need to be sensitive to the activities across the boundary in Mkhambathiniin order to minimize potential negative impact. • Improving linkages between the two Municipalitieswill facilitate better access to the economic and social services between the communities of the two Municipalities. • Cognisance need to be given to the Mayibuye Game Reserve on the north western boundary of Cato Ridge. • Greater emphasis need to be placed on the Umbumbulu region with its rapid urbanisation and impact on the R603 which serves as an alternative major route through the region. **General planning issues** • Cross border mapping (to include terminology of nodes, corridors and uniform colour coding). • Special meetings regarding development applications and proposals along N3 corridor and/or encroaching the boundary of the municipalities particularly on Umlaas Road, Camperdown, Cato Ridge and Umbumbulu. This also involved housing and bulk infrastructure projects. • It was also proposed that joint site inspections be undertaken on the identified strategic projects that could be a point of

	electricity to any proposed projects.	integration between the two Municipalities, with the aim of analysing and making possible land use adjustment to ensure sustainability and also to ensure that these projects will benefit the wider communities. **Planning interventions** In addition to the agreements reached between the two municipalities in terms of dealing with cross boundary planning alignment issues, the recent planning interventions taken by eThekwini Municipality and COGTA KZN,will provide necessary supportin addressing the remaining cross boundary issues as follows: • The Cato Ridge Review (currently underway) will look at the area adjacent to the game reserve to ensure that land use proposals are compatible to the game reserve. • The recently approved Mpumalanga Local Area Plan (LAP) (2014), discourages industrial developments close to the boundary and recommends for the formalization of the existing informal settlements in Sankontshe and Georgedale. • The SIP 2 project is still in progress and both municipalities are actively involved as part of the steering committee to guide against any conflicting land uses across the boundary and to ensure alignment with the two municipalities strategic plans.
UGu Municipality Local municipalities within UGu include the following • Vulamehlo • uMdoni • Umzumbe • Umuziwabantu • Ezingolweni • Hibiscus Coast	**uMdoni** • The Municipality is located about 50 km from Durban, which makes it has both competitive and comparative advantage with EM particularly in terms of tourism. • Umdoni has an approximate coastline of 40 km and stretches inland as far as Umzinto. • Umdoni has established tourism infrastructure and an existing tourism market for coastal, golf and diving adventure tourism	The methodology for this alignment has been the collection of data through meetings held with the neighbouring municipalities. The meeting was held on the 18th of March 2016, with Vulamehlo and Umdoni Municipalities. The municipalities have agreed that joint planning and alignment is needed on the following issues: the IDP, SDF, GIS, and project Proposals. **uMdoni** • At the boundary of EM where the two municipalities border each other; there are disparities in densities. The EM proposes low densities with a level of services to match low density areas in order to maintain and promote rural and agricultural activities. On the other hand Umdoni is proposing high income housing coupled with mixed use developments. This creates non alignment in term of densities and service requirements. • It has emerged that development in the northern portion of Umdoni may be dependent on a services level agreement

	Vulamehlo • Predominantly rural in nature • Has limited services and infrastructure • Has high levels of unemployment	with eThekwini. • There are potential synergies from tourism and agricultural development that will be explored **Vulamehlo** • There are disparities in services in areas towards the border of EM and areas towards the boundary of Vulamehlo. In this regard, EM is about to embark on a planning exercise to understand these disparities and to determine the interventions required in order to develop the level of services to align with EM. • There is alignment in terms of proposed uses as both municipalities have low density rural housing developments at their boundaries. • There are issue in terms of access routes for the areas that are within the boundary (eThekwini and Vulamehlo), making it difficult for the municipalities to share services and opportunities. This will be a challenge in future hence these areas will be under eThekwini and should be linked. • There is a strong alignment of environmentally sensitive areas; the border between eThekwini and Vulamehlo also indicates an alignment potential of areas considered to be traditional agriculture (Vulamehlo) and future residential (eThekwini). • There is alignment in terms of land uses, eThekwini has rural residential which aligns with the Vulamehlo rural residential. **General planning issues to emerge:** • The need to establish one forum: consisting of the IDP, SDF and GIS representatives from Department of COGTA and relevant municipalities. • A forum has been established between eThekwini, Vulamehlo, Ugu and Umdoni. • Umdoni Municipality held an Ethekwini, Umdoni, Vulemehlo Strategic Workshop on both the 28 of January 2016 and on 11th February 2016 to address alignment of Incorporation of Vulemehlo into eThekwini & Umdoni in which EM has participated and key service deliver issues and challenges were discussed. • Umdoni Municipality convened a SDF status quo meeting on 3rd March 2016 of which

		eThekwini officials attended.The status quo was presented Tshani Consulting which is still in progress and further engagement is anticipated. • Both Umdoni and EM agreed to have ongoing engagements to discuss development applications and proposals with specific reference to: o Agricultural areas in decline- o Land reform issues o Use of rail for commuting and tourism purposes

The Municipality has engaged neighbouring municipalities, other key government departmental sectors and parastatals. These include the Department of Water and Environment Affairs (DWEA), Umgeni Water, ESKOM, Department of Transport (DOT), Public Rail Association of South Africa (PRASA) as well as ILembe, KwaDukuza, Ndwedwe, UGu, UMkhambathini and UMsunduzi local and district municipalities.

In addition there is currently a demarcation process underway of which eThekwini Municipality is the recipient of four wards from Vulamehlo Municipality. As part of the process of incorporating these wards into the Municipality planning structures a study has been undertaken to determine the level of planning that has been done and to identify available information for further planning. The available information was insufficient; hence eThekwini Municipality and Umdoni Municipality through a number of engagements collaborated to have a detailed ward profiling project undertaken for the demarcation areas. The main aim of the survey is to gain an understanding of the status of each ward, so that eThekwini Municipality and Umdoni Municipality will have an understanding of the nature of the areas that they are inheriting, and be able to plan for those wards. COGTA is currently running with this initiative

A steering committee between eThekwini Municipality, Umdoni Municipality and Vulamehlo Municipality has been formulated where constant engagements, planning and decisions regarding the way forward are being taken.

2.2.6 EThekwini Rural and Traditional Authority Areas

The National Development Plan (NDP: Chapter 6) requires all municipalities in South Africa to prioritise development in rural areas. The NDP 2030 vision for rural areas is to have access to economic opportunities, through agriculture, mining, tourism, fisheries and agro-processing where applicable and high quality basic services. The NDP also requires all municipalities to include a Chapter in the IDP/SDF to demonstrate the approach to rural development within their areas of jurisdiction. The eThekwini Spatial Development Framework is also expected to incorporate a Rural Development Strategy to reflect how the municipality is responding to the National Development Plan's (Chapter 6) call for prioritising rural development.

The KwaZulu Natal Provincial Growth and Development Strategy (PGDS) has identified the KZN Province as a having high percentage of rural areas in comparison with the other provinces. The PGDS also highlights

the KZN Province as the highest contributor to the agriculture sector (58%) in the past 5years. Therefore the PGDS emphasises the need for municipalities in KZN to prioritise rural development in their areas of jurisdiction. The Minister of Cooperative Governance and Traditional Affairs (COGTA) in the 2015/2016 SDF review comments also raised concerns that the eThekwini SDF does not adequately reflect its intentions to develop rural areas.

The eThekwini Municipality has also realised the need to pay more attention to planning for the rural areas due to a number of spatial challenges. The “rural” areas in eThekwini Municipality comprise approximately 68% of the municipality which largely falls beyond the 'urban development line with communal land tenure under the ownership of Ingonyama Trust Board and Traditional Authorities. There is a number of traditional Aiutorities represented in eThekwini Municipality and these area reflected in Figure 17 below. These areas are characterised by hilly, rugged terrain, varied settlement patterns, commercial farms and small holdings. These areas support different lifestyles and densities as they encompass a number of areas that can be categorised as peri-urban. There is a lack of land use management in these areas which has resulted in some of the households in rural areas being located on environmentally sensitive land and within road reserves.

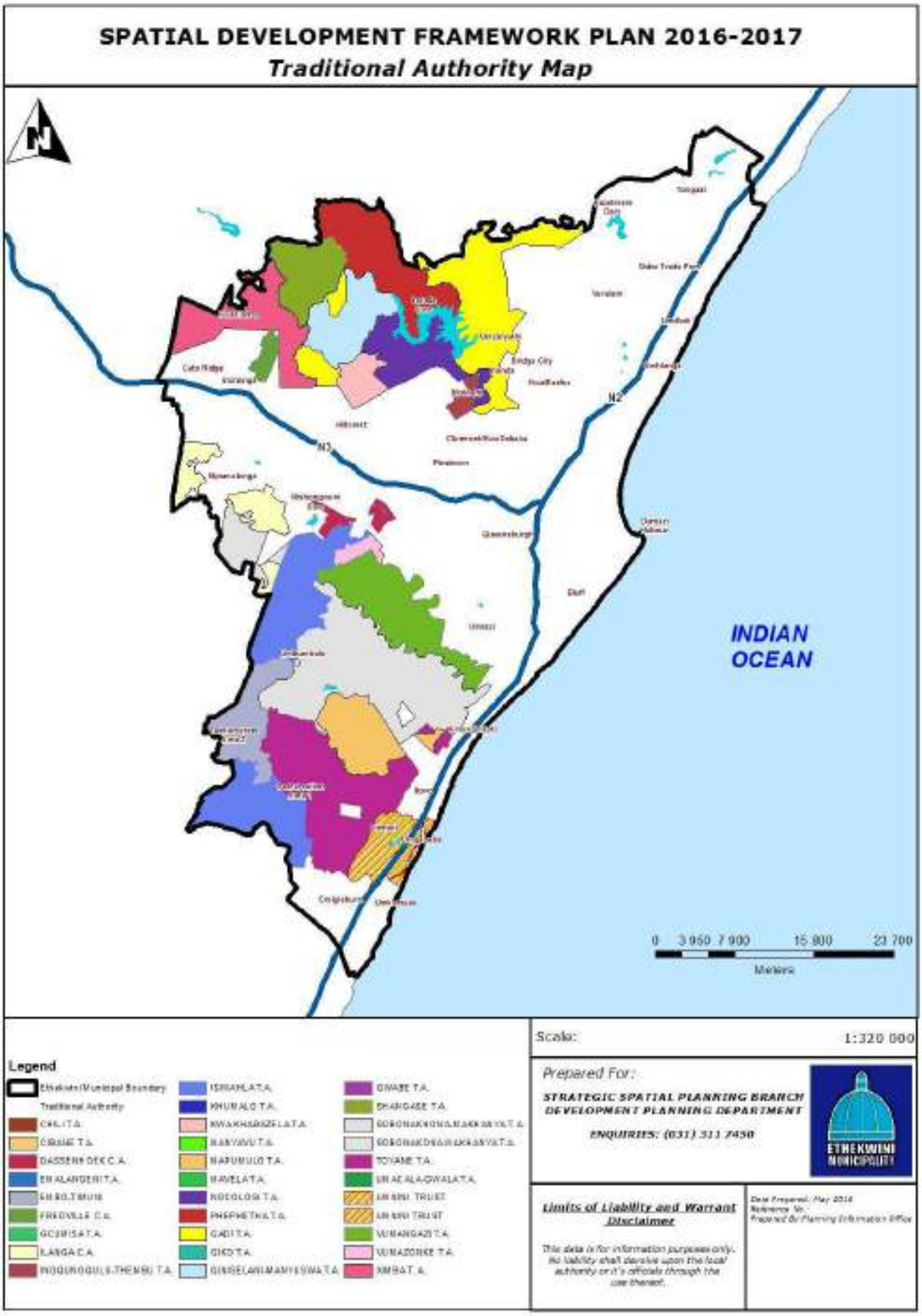


Figure 17: Traditional Authorities

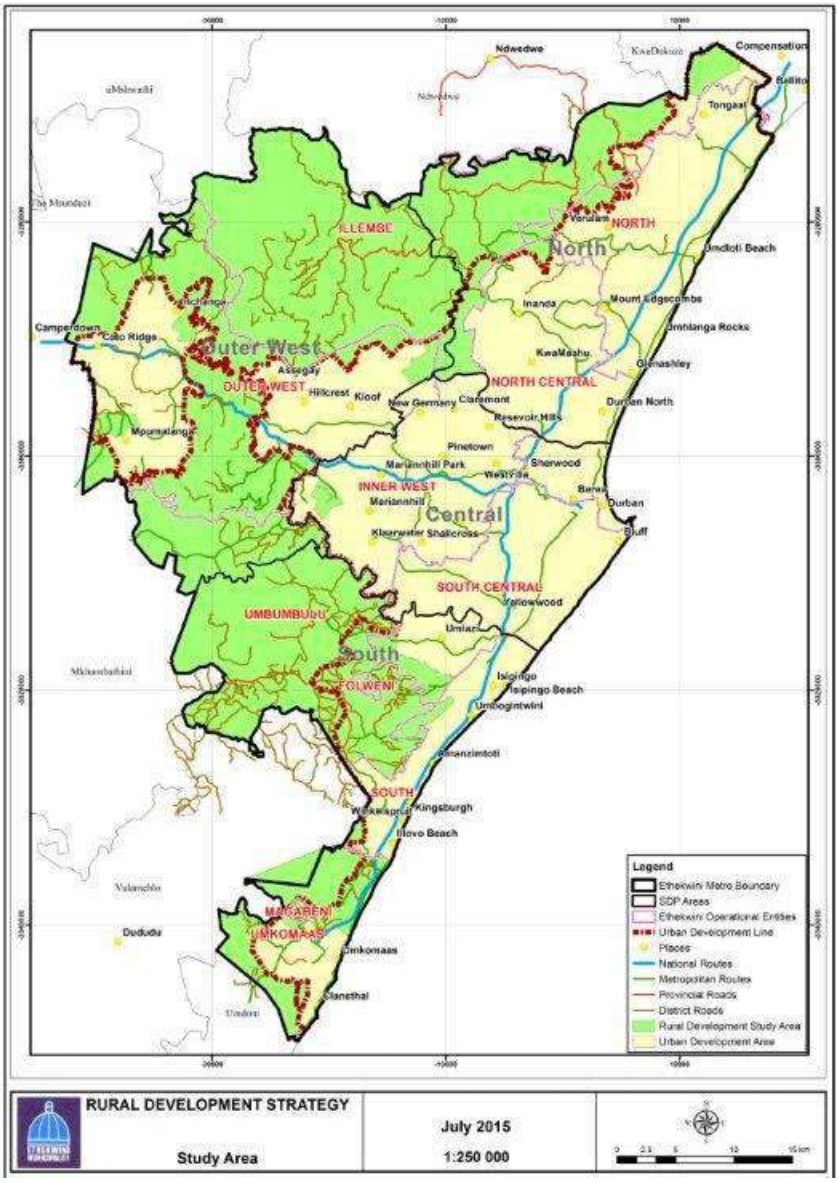


Figure 18: Study Area

The rural areas in eThekwini Municipality are undergoing rapid change as the existing rural settlements are sprawling and transforming to peri-urban settlements which is attributed to the absence of land management and haphazard land allocation, which is flexible, context specific and not documented. In some areas these settlements have reached densities of up to 30 dwelling units per hectare which is similar to those of urban areas (eThekwini Draft Rural Development Strategy: 2016). The current level of services provided in rural areas is the urine diversion toilet, and the water supply is limited to a household standpipe which provides a maximum supply of 300 litres per day. This was in line with the conventional rural densities that allowed for large site size at a minimum of 1800 m².

The municipality has a mandate to do planning in “rural” areas but has no control over land management. Housing provision is a challenge in that the nature of the subsidy dictates the type of housing to be provided. This is problematic in the areas that are densifying outside of the urban development line as these are categorised as rural but have increased in densities and have a different character to the typical rural area.

Rural settlements within the study area are sprawling and becoming peri-urban in character and others have densified to the same levels as fully fledged urban areas. The servicing standards have remained

unchanged for a long time resulting in uninhabitable environments, especially in high density “rural” settlements. Some settlements locate next to high mobility roads and illegally gain direct access from these roads; often resulting in road accidents and fatalities. There is therefore a need to redefine rural densities, boundaries and the role and structure of the rural areas of eThekwini Municipality to improve the social, spatial and economic contribution of rural areas in eThekwini municipality. To deal with the multi-dimensional issues of planning for these dynamic areas, the eThekwini Municipality has prepared a Rural Development Strategy.

2.2.6.1 Objectives of the Rural Development Strategy

- To define “rural” and “rural boundaries” within the eThekwini Municipality taking into account the relationship between rural, peri -urban and urban areas and the eThekwini City Densification strategy (and other relevant spatial strategies such as the recently identified Integration Zone)
- To prepare a rural framework that aligns with the City’s vision and develop rural strategies that promote sustainable economic development, protection of the environment, food security and sustainable settlement patterns with associated community facilities,
- To examine the provision of appropriate services for the rural areas,
- To understand the legal and land issues that affect land use management,
- To develop institutional arrangements to ensure effective land management and service delivery,
- To develop land use guidelines and identify priority areas to be further investigated for detailed planning,
- To review the Hierarchy of Rural Nodes and identify an appropriate land use mix and densities to support rural nodal development.

2.2.6.2 Defining Rural areas

Many definitions of rural and urban have been developed over the years. Whilst there is no one agreed-upon definition for what constitutes "rural," most methods of classifying territory along an urban-rural continuum make reference to population size and density, level of urbanization, and/or the relationship to urbanized areas in terms of economic activity, commuting patterns, lifestyle , and so on. From the explored definitions of “rural” we could develop a study specific characterization of rural which looks at areas outside of city limits, sparse population using population formula per square kilometre, population densities less than 150 people / km², dwelling densities less than 1du/ hectares, primary economic activity being agriculture and generally located in the countryside.

Apart from commercial farming areas, which are very limited within the eThekwini municipal area of jurisdiction, there are very few rural areas that align strictly to the definition and concepts considered for a “rural” setting. However, caution must be exercised in saying this, knowing that there have been some adjustments to the municipal boundaries with the incorporation of new areas in the south (portion of Vulamehlo) that may meet the definition parameters of “rural”. The “limited rural” areas noted above are observed on the peripheries like Cele, Nkomokazi, etc and these are largely the outskirts that form the boundaries with the adjoining municipalities. However the rate of densification and urbanisation of these remaining rural areas is such that they are likely to lose the rural character within the next 5 to 10 years, based on the rate of comparable transformation of areas observed within the municipality. This is exacerbated by the fact that eThekwini is a Metro, a Provincial node and gateway to Africa.

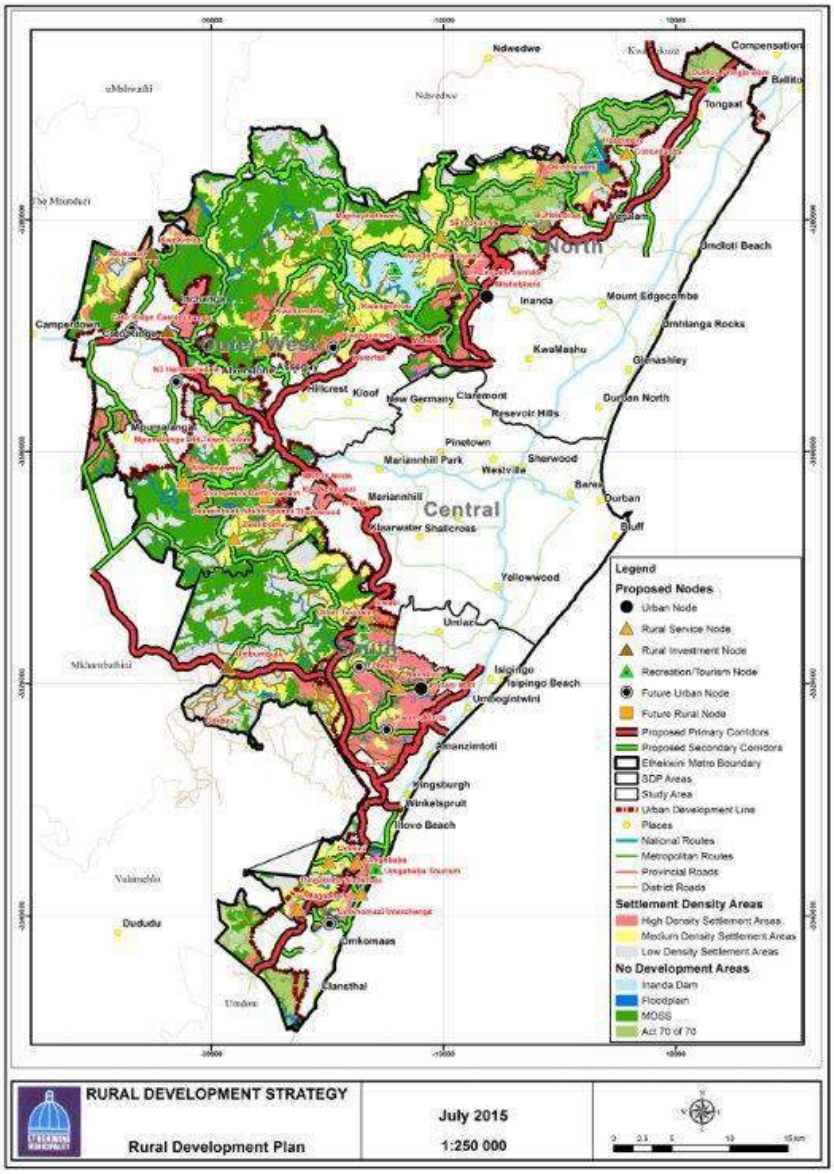


Figure 17: Rural Development Plan

In the eThekwini Municipality, it is noted that some areas have been viewed as rural because they fall within Ingonyama Trust and Traditional Authority jurisdiction. It must be noted that within eThekwini, these areas are no longer sparsely populated and have very limited vacant spaces. The large part of this land is practically peri-urban. Having said this about the rural character there are also practical linkages and service issues that will need to be reviewed.

- Large sections of outlying areas of eThekwini are still located further than 15 kilometres from a Rural Investment Node;
- Some outlying areas, specifically in the western parts, are still located more than 30 kilometres (at least 1-hour travel time) from a Rural Investment Node or an urban retail node; and
- The majority of the Rural Investment Nodes are still underdeveloped, with only Umbumbulu offering a limited range of retail and social services. This is due to the unavailability of bulk infrastructure to attract commercial activities.

2.2.6.3. Approach towards a Rural Development Strategy

Rural areas are sparsely settled and generally make good use of subsistence agricultural activities to sustain their livelihood. Owing to the sparse settlement, these areas usually lack formal infrastructure and services. Smallholdings- these are to a large extent privately owned farms used for commercial productive purposes. Some of these private farms accommodate isolated pockets of settlements, accommodating farm tenants and labourers. Peri urban areas are characterized by relatively high densities of settlements with a lot of retail activities accommodated within the centres of these areas. Most of these are under the traditional land ownership which adds to the ambiguity of servicing these areas, an issue that this strategy intends to address. Current infrastructure in the peri urban areas is generally not at par with the existing densities.

Based on the settlement typologies observed within the study area there are four bands of densities that guide the strategy.

- High density areas above 20 dwelling units per hectare,
- Medium density areas of 7 – 20 dwelling units per hectare,
- Rural areas of 4-7 dwelling units per hectare and,
- Commercial agriculture land of less than 4 dwelling units

Peri urban areas are shown as yellow and pink in the figure below:

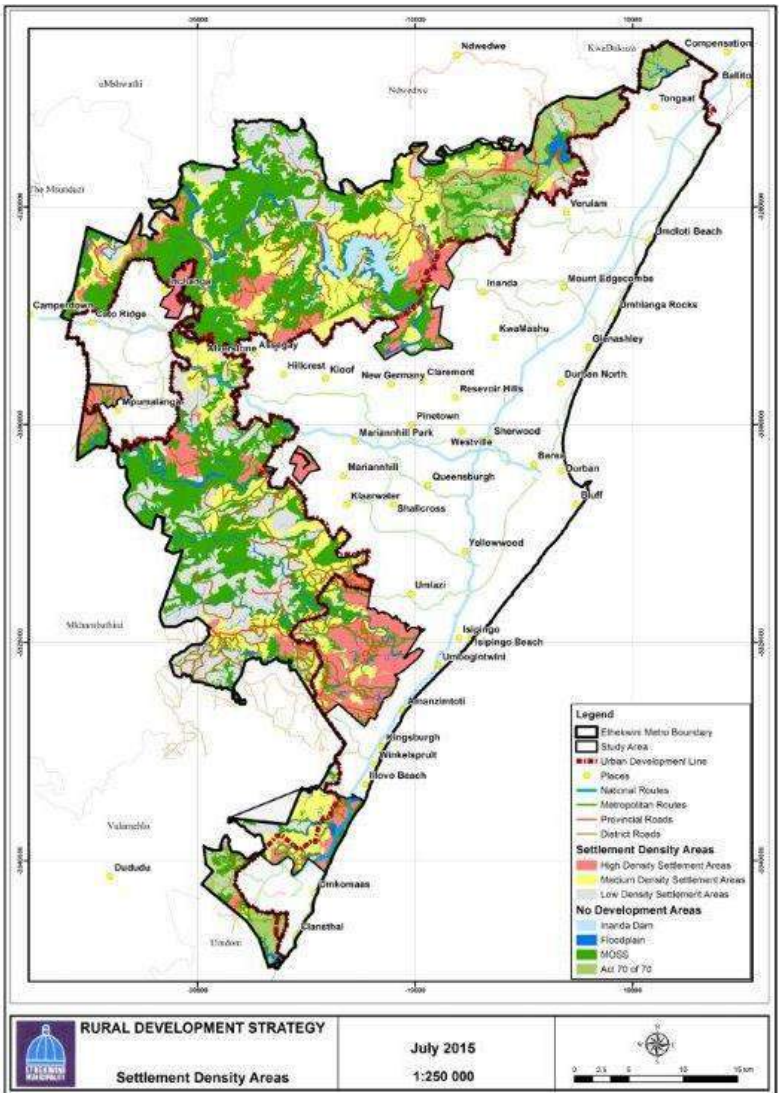


Figure 20: Settlement Density Map Source: Draft eThekwini Rural Development Strategy: 2016

The table below represents refined densities in relation to infrastructure provision

AREA	DENSITIES	DESCRIPTIONS	EXAMPLE: LEVEL OF SERVICE	EXAMPLE: ECONOMIC CONSIDERATIONS
A	**High density informal settlements (**above 20 du /ha	• These are typically high density areas within the study area where development has already taken place at a rapid rate. • To a large degree the location of these areas is strongly influenced by a good road network system linking such areas with neighbouring amenities.	The development and provision of services in these areas needs to follow fully serviced high density sites. These should provide the following services: • Water borne sanitation • Water to each site • Storm water measures	Business activities at nodal points and other designated areas
B	**Medium density homesteads** (7-20 du / ha)	These areas are typically medium density that could still use some form of on-site sanitation They are also influenced by a good road network system linking with adjoining communities	The following services are to be provided: • On site sanitation • Individual to communal water	• Business activity at nodal points • Subsistence agriculture around homesteads as well as communal urban agriculture.
C	**Low density residential settlements** (1-7 du/ha)	These are low density areas of a rural setting. Households here also depend on what is offered by nature for living e.g forestry, rivers,	The following services are to be provided: • On site / homestead based sanitation • Individual to communal water • Use of Natural River streams, springs and boreholes. • Use of wood and other traditional forms for energy generation.	Subsistence to commercial agriculture involving livestock farming, plantations, gardens Herbs and medicinal plants
D	**Commercial /farming areas** Less than 4 du/ha	Largely commercial farms	• Primary economic activity agriculture,	Commercial agriculture

(Source: Draft eThekwini Rural Development Strategy: 2016)

There are typically high density areas above 20 du/ha within the study area where development has already taken place at a rapid rate (figure:). To a large degree the location of these areas is strongly influenced by a good road network system linking such areas with neighbouring amenities. The development and provision of services in these areas needs to follow fully serviced high density sites. These should provide the following services, water borne sanitation, water to each site; storm water measures, business activities at nodal points and other designated areas

There are typically medium density areas of 7-20 du/ha that could still use some form of on-site sanitation. These are also influenced by good road network system linking with adjoining communities. The following services are to be provided: on site sanitation, individual to communal water, business activity at nodal points, subsistence agriculture around homesteads as well as communal urban agriculture. There are also low density areas of rural setting with densities of 1-7 du/ha. The low density rural areas can be serviced by on site / homestead based sanitation, individual to communal water, subsistence to commercial agriculture involving livestock farming, plantations and gardens. Commercial /farming areas are characterised by less than 4 du/ha and the primary economic activity is agriculture. Commercial farms are privately owned.

2.2.6.4. An institutional framework

A number of stakeholders need to be involved in order to realise the intentions of the strategy. These include Amakhosi, eThekwini leadership, Ingonyama Trust Board and COGTA. In terms of the strategy it is argued that there are three institutional scenarios (detailed in the report) that can be formulated to prioritise key elements as starting points to the strategy to regulate rural development in eThekwini. It must be made clear that the history of alienated relations between formal government structures and institutional arrangements in rural areas require a specific focus. Therefore amongst these starting points is the primary issue of creating an institutional framework as a basis for forging working relationships between stakeholders associated with rural governance and government. This is why the institutional framework features in all scenarios.

2.2.6.5 Developing strategies

STRATEGY 1: Detailed plans that can be surveyed
This is perhaps the most obvious starting point in addressing the challenges associated with densities. This intervention will ensure that all the land spaces vacant and settled are properly accounted for through planning and meeting requirements of SPLUMA for wall to wall schemes. This process should take into account institutional strategies as the engagement of all stakeholders is crucial. The composition of teams should be such that the team undertaking the planning tasks includes social and GIS or surveyor skills who will account for all existing structures and the communities' perceived boundaries. The settlement layout plan should clearly indicate the proposed densities from design point of view.

STRATEGY 2: Servicing the areas based on the area character rather than tenure character
The municipality should ensure that services in denser areas are at appropriate levels so that such areas are sustainable. Prevalent tenure arrangement should not be a consideration in the servicing of areas. Discussions and investigations are underway by servicing Departments to look for sustainable solutions to realise this.

STRATEGY 3 – Capacitating local stakeholders to manage land effectively
This strategy seeks to address the anomalies created by the different roles and responsibilities within land management. It is suggested that training programmes be developed in conjuction with COGTA to ensure that the traditional authorities are kept abreast of land management techniques. The training should include land restrictions e.g. servitudes, road reserves, environmental zones etc. Possible programmes will include training of ward committees, amakhosi, izinduna on environmental issues and road safety amongst other things.

2.2.6.6. Existing Hierarchy of nodes

Development nodes are largely centres of activity (albeit at different scales) which are linked to development corridors in terms of people and physical thresholds. Nodes are important points providing concentration of different activities. Again nodal points have a potential to expand in size based on different uses.

Nodal areas can be used to concentrate specific activities which could have a multiplier effect to a broader municipal area. Apart from this it can yield economic benefits to promote certain land uses clustered for both

the supplier and the user in that other associated services could be found within a short radius. There are four identifiable tiers of Nodes; Rural Investment Nodes, Rural Service Nodes, Rural Tourism and Recreational Nodes and Agriculture Nodes but key to the SDF are Rural Investment Nodes. Rural Investment Nodes have potential for Support Services such as Business, Agriculture, Tourism and Environmental opportunities for local economic development. The Rural Investment Nodes includeuMgababa/ uMnini, Umbumbulu, Inchanga, uMzinyathi and KwaXimba

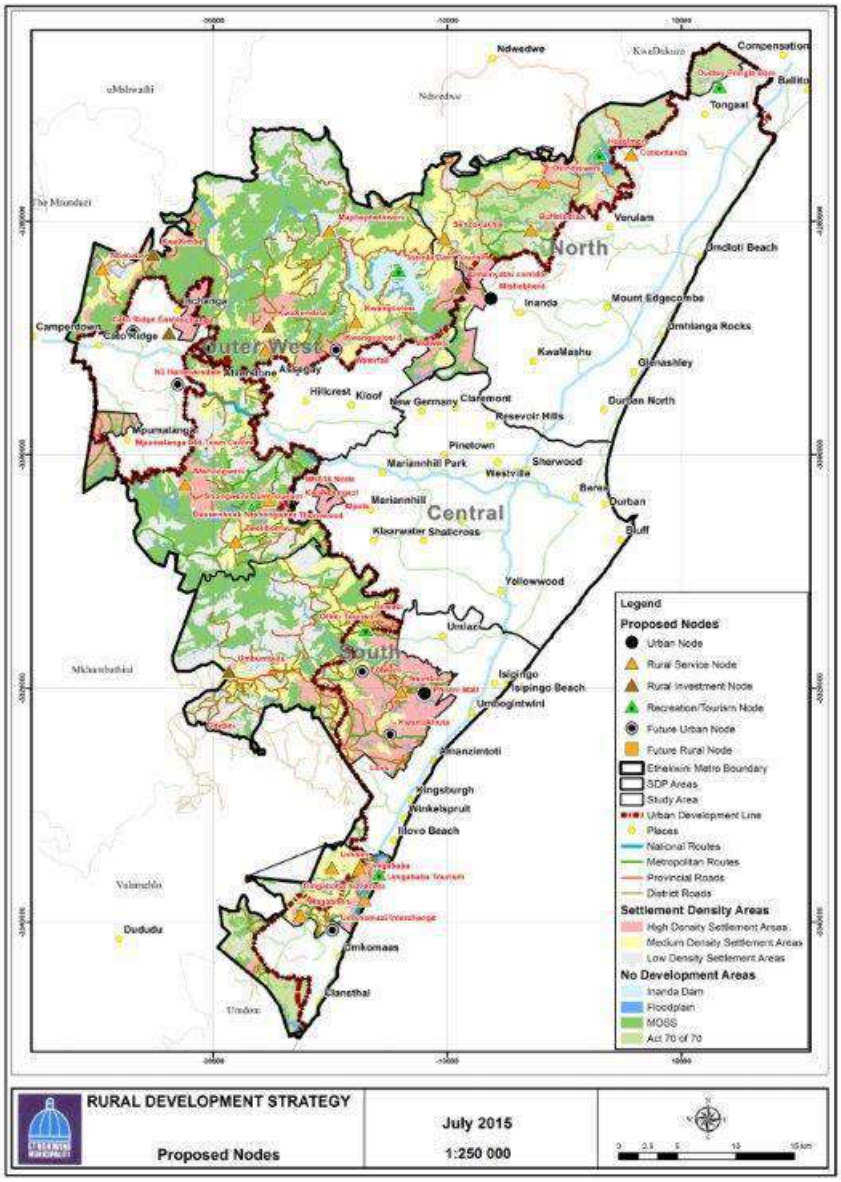


Figure 21: Proposed Nodes

The most significant finding and recommendation from the strategy is that the so called “rural areas” can no longer be classified and developed as such. From an economic perspective these areas should be viewed as transitional in nature, transitioning from rural to urban. From a servicing point of view these areas need to be serviced based on their character and there is a strong need for a strengthened institutional arrangement.

2.2.7 Coastal Planning and Coastal Management

The eThekwini Municipality has 35 km of coastal area that extends from Clansthal in the south to Westbrook in the north. Large sections of the coast are developed with some pockets of agricultural use. The coast offers prime residential and recreational opportunity.

Some of the challenges that the coastal areas face are; pollution from industry, development pressures, informal settlement areas, and risk to shoreline developments from raised sea levels and increased storm surges, a high energy coastline resulting in erosion and loss of land, loss of coastal habitats and ecosystems and a limited capacity of coastal environment to sustain the high demand for recreational access and use.

In an effort to protect, enhance and expand the coastal amenity, character, environmental service and resource base and maximise the economic and social development potential of our coastal asset, the Municipality has undertaken extensive planning to guide development and recreation along our high value coastline. As far back as November 1999, the Coastal Tourism Development Plan was adopted by the then Durban Metro and Sub-Structure Councils. This plan, established the role and functionality of the coastline in a metropolitan context and informed the earlier Metropolitan Spatial Development Framework prepared in 1998/1999.

Increasing pressure for additional coastal recreational facilities in the North Region in particular and increasing damage to municipal facilities along the coast from storm-water flooding and sea damage necessitated that the Municipality investigate innovative ways of managing land use and storm water disposal along the coastline to further protect the sensitive coastal environments and costly municipal infrastructure. To this end an Innovative Coastal Tourism Research Project (North Local Council, September 2000) was undertaken. This study identified the role and functionality of micro-catchments as a basis for informing appropriate land use and storm water management. Further detailed planning initiated in 2007, culminated with the adoption of the Ohlanga – Tongati Local Area Plan and Coastal Management Plan in February 2010, an innovative study combining land uses and coastal management and which extensively influenced the land uses included in subsequent reviews of the North Spatial Development Plan and Spatial Development Frameworks. Further work was then undertaken in the Umhlanga Node in order to promote a well integrated, pedestrian-friendly, safe and attractive environment for residents, visitors, and tourists. The plan was adopted by Council in June 2008.

The work done in the North region was mirrored in the South Region. In considering the impact of coastal land use and storm damage on coastal tourism opportunities and coastal assets, in particular the internationally acclaimed Aliwal Shoal, the Umkhomazi Local Area Plan, 2010 recommends land uses and strategies that minimise the risk to effective coastal management. Similar intentions to protect coastal assets in areas under extreme pressure for development have been addressed through the DRAFT Umgababa Coastal Management Plan, Draft Isipingo Local Area Plan and the Estuary Management Plan for Isipingo. Work is currently being undertaken on the Inner City Local Area Plan, which will also seek to protect and enhance our coastal assets and promote Durban as a seaside and tourism destination.

Understanding the unique value that the coast offers to Durban and considering the pressures currently on that resource, the eThekwini Municipality is required to take urgent and focused action to reverse the current trends and secure the coastal asset and it has done so through the adoption of the Coastal Management Strategy in 2012 and introducing a number of coastal management tools and guidelines.

It is important to note that the detailed proposals contained in all of the aforementioned plans have informed all relevant higher order plans (Spatial Development Plans and Spatial Development Frameworks) as part of the iterative process in which the package of plans is undertaken. A summary of the coastal planning and management plans are attached at Annexure 11.

2.2.8 EThekwini Land Use Management Framework

Land Use Management Schemes, more commonly known as Schemes, are statutory planning tools used to manage and promote development. A land use scheme is a critical component of the integrated spatial planning system and deals with zoning and built form controls. The intent embodied within the package of spatial plans must be translated into the most appropriate zones and land uses within the schemes. Schemes are the tangible tools in the package of plans as it is this level that development rights become important proponents for development. Schemes enable statutory decisions to be made and this in turn allows building plans to be considered. Schemes are required by law to be reviewed on an annual basis in line with the IDP and SDF reviews.

Land Use Schemes are planning tools used to deliver quality environments. This results in integrated responses which allows for the establishment and creation of robust and vibrant environments; while at the same time contributing to sustainable environments. Planners over the years have grown to realise that Planning is far more than a planning response to applications; rather the emphasis is now on environmental issues, infrastructural capacities and equally on the impact of development. Schemes also provide a mechanism for effective protection of ecosystem services through the creation of specialized environmental land use zones.

Schemes are the mechanisms that drive the Municipality's income as it relates to development and informs building plans, a variety of land uses such as mixed use developments such as Umhlanga Ridge and KwaMashu Town Centres; it creates quality work environments such as the La Lucia Office Park; and robust Industrial parks such as River Horse Valley and the emerging Cornubia Industrial Area; not to mention quality recreational spaces such as the Umhlanga Promenade.
Within the Council's area of jurisdiction, there are land parcels that are contained within Schemes areas; land contained outside Scheme areas; land parcels that are under the jurisdiction of the Ingonyama Trust Board. (See Map below):

While Council in 2003 resolved to include all areas under its jurisdiction, the Department of Agriculture has yet to consent to numerous applications; identifying sustainability of agricultural land into the future as their primary concern. This is a critical issue as strategic land parcels cannot be released for development.

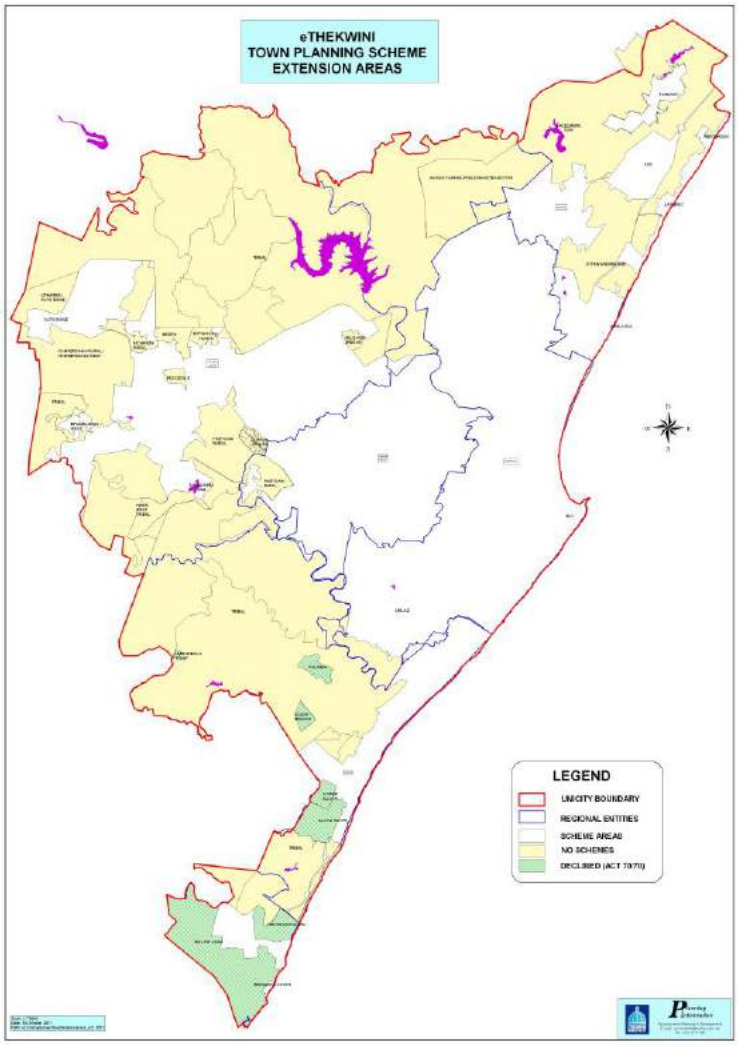


Figure 22: Town Planning Schemes Extension Areas

Schemes within eThekwini Municipality are currently being reviewed to include and address climate change issues, energy efficiency and sustainable environments. Past planning has left huge gaps in managing and directing development. Old order legislation has to some extent allowed some 'peripheral townships' to develop in exactly the same way as formal areas. Townships such as uMnini have had huge capital infrastructure injection making them different from other areas. However, in the absence of a Scheme, development has not been managed in a sustainable way.

To date all previous R293 townships now have a formal scheme implemented. This allows for managing development in these areas. It also allows infrastructure departments to plan for these areas thus enhancing service delivery and broadening the rates base of the council. It encourages investment and reduces poverty, but most of all it improves people's lives.

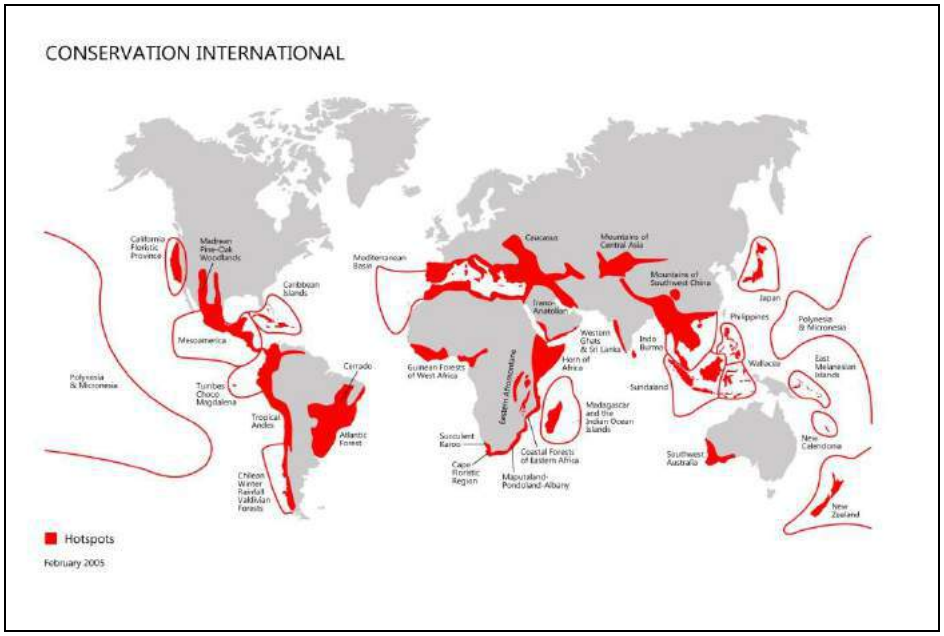
Approximately 68% of the Municipality falls outside of scheme areas and these include areas under Traditional Authority and commercial farms. The land use management in these areas is a challenge as the municipality does not have authority in these areas and land allocation occurs haphazardly. There is no proper planning for the allocation of bulk services and social facilities as a result some areas are densely populated and the level of services provided in rural areas is no longer sufficient. The eThekwini Municipality has undertaken a rural development strategy in order to address these challenges and has also undertaken the Umnini Rural Scheme pilot project details of which are outlined in Chapter 8. The rural scheme project will be rolled out in all rural areas within the municipality in order to achieve the following:

- Efficient and effective use and management of land particularly regarding provision and management of services and public facilities
- Efficient and effective management of environmental resources
- Certainty for potential investors.

2.3 Environmental Planning Issues and Trends

2.3.1 Ecosystem Services Proved by Durban's Natural Environment

The eThekwini Municipality (EM) is situated at the centre of the Maputaland-Pondoland-Albany Region, an area described by Conservation International as a "Biodiversity Hotspot", one of only 34 in the world. Hotspots are areas that contain high levels of endemism (species specific to an area and not occurring naturally anywhere else) and threats. Over 50% of the world's plant species and 42% of all terrestrial vertebrate species are endemic to the 34 global biodiversity hotspots, despite these areas covering only 2.3% of Earth's land surface (Conservation International, 2013).



Source: Conservation International 2013
Figure 18: The Global Biodiversity Hotspots

The Maputaland-Pondoland-Albany biodiversity hotspot region is home to more than 7, 000 species of vascular plants, 25% of which are restricted (endemic) to this area (van Wyk & Smith, 2001). Durban is situated at the centre of this region in a transitional zone of the warm tropical and cooler temperate elements. Varied topography, climatic conditions and Durban's unique biogeographical position have resulted in a wide range of terrestrial and aquatic ecosystems that play host to a rich diversity of organisms.

The open spaces in Durban can be categorised into four distinct entities: terrestrial, freshwater, estuarine and marine. Durban also contains three of South Africa's eight terrestrial biomes, namely Savanna, Forest and Indian Ocean Coastal Belt (which contains a mosaic of grassland and forest), and eight nationally recognised vegetation types. These are: Eastern Valley Bushveld, KwaZulu-Natal Coastal Belt, KwaZulu-Natal Hinterland-Thornveld, KwaZulu-Natal Sandstone Sourveld, Ngongoni Veld, Scarp Forest, Northern Coastal Forest and Mangrove Forest. Freshwater ecosystems are numerous and varied, ranging from small inland seeps to major perennial rivers, all of which terminate at estuaries where the marine and terrestrial environments converge. Marine ecosystems in Durban exist seaward of the high-water mark and include sandy beaches, rocky shores and the in-shore marine environment.

2.3.2. The Durban Metropolitan Open Space System (D'MOSS)

2.3.2.1. What is D'MOSS?

D'MOSS is a system of open spaces incorporating areas of high biodiversity value (private and public owned) linked together in an ecologically viable network of open spaces and is composed of a variety of habitat types. The first municipal version of the Durban Metropolitan Open Space System (D'MOSS) plan was prepared and approved in 1989 by the then Durban City Council. For many years D'MOSS existed purely as a policy directive of Council and was implemented in terms of this directive. Due to uncertainty on its status with respect to the existing zoning under the planning schemes and often the undertaking of work unaware of the existence D'MOSS, it was decided to integrate D'MOSS into planning schemes as a control area or overlay. D'MOSS was finally integrated into all eThekwini Municipality schemes following its formal adoption by Council in December 2010.

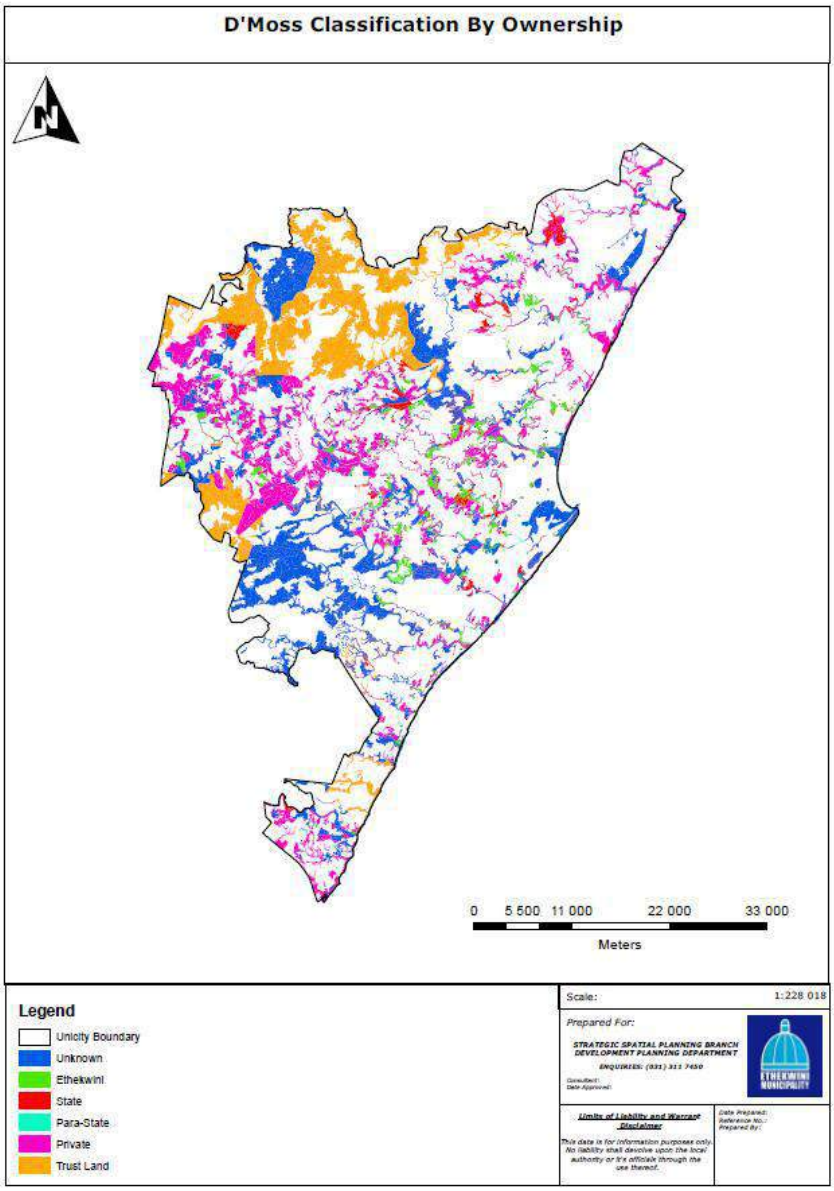


Figure 19: D'MOSS Classification by Ownership

The following map represents the key environmental assets as represented by D'MOSS that should be conserved and protected. D'MOSS is mapped using an expert-based approach to identify areas for inclusion

into the layer. The current approved D'MOSS layer covers an area of ~ 74, 500 ha, representing approximately 33% of the total municipal area.

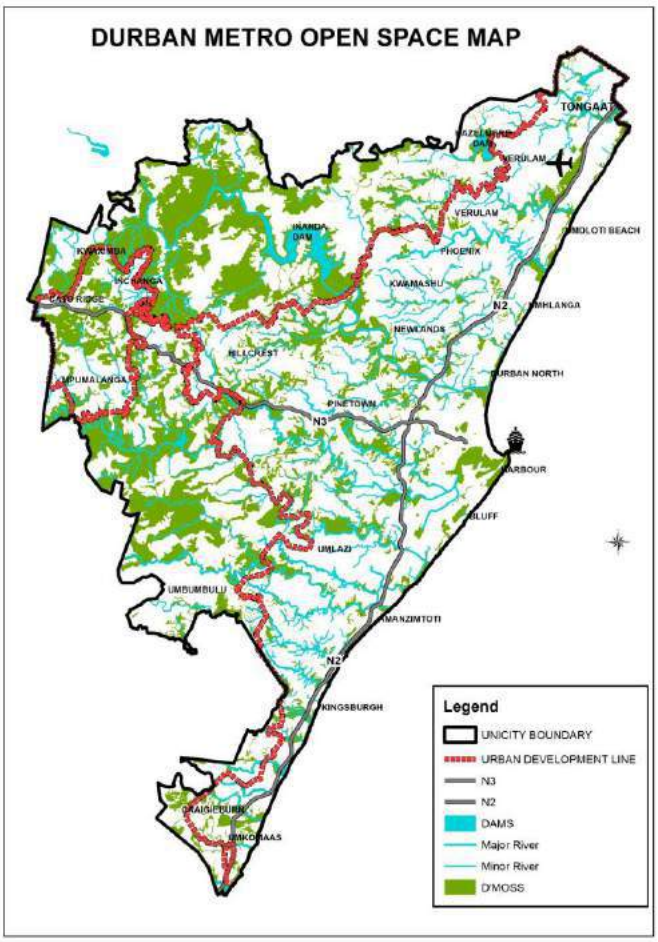


Figure 20: D'MOSS Map

2.3.2.2. How is D'MOSS used in municipal planning?

DMOSS is a municipal planning tool that seeks to highlight important natural environments and the ecosystem services they provide. Should a landowner wish to develop their property, and if the property falls within the D'MOSS layer, a more detailed investigation of the site to be developed will be conducted to assess potential environmental impact of the development. This assessment will be primarily in terms of the town planning schemes but possibly also in terms of the National Environmental Management Act 1998, (NEMA, Act No. 107 of 1998). The outcome of this investigation will be either:

i. No impacts are expected and the activity may proceed,
ii. Significant impacts are expected and an environmental assessment prepared by a suitably qualified practitioner will be required in order to fully assess the application. Approval may be subsequently granted with or without conditions or,
iii. The activity is not supported because the impacts are significant and cannot be mitigated.

2.3.2.3. D'MOSS: Provisions of the schemes of eThekwini

"**D'MOSS Controlled Area"** means any area demarcated upon the map by the overprinting of a green hatched pattern (or by a green layer on the GIS), where, by reasons of the natural biodiversity, the existence of flora and fauna, topography, or the environmental goods and services provided or other like reasons, development or building may be prohibited, restricted or permitted upon such conditions as may be specified having regard to the nature of the said area;

(a) No person shall within a D'MOSS controlled area develop any land, or excavate or level any site, or remove any natural vegetation from, or erect any structure of any nature whatsoever, dump on or in or carry out any work upon such site without having first obtained the prior approval in terms of this sub-clause.

(b) No such approval shall be given unless the Head : Development Planning Environment and Management, after due examination, and subject to such conditions as he/she may specify, is satisfied that any such development, erection or other work referred to in paragraph (a) hereof can be carried out without materially and/or temporarily degrading, destroying or negatively impacting on the integrity of the biodiversity and/or environmental goods and services found or generated within the said area.

(c) For the purpose of any examination referred to in paragraph (b), the applicant shall, where required by the Head: Development Planning Environment and Management submit such plans or other supporting documentation as the Head: Development Planning Environment and Management may require. Without affecting the generality of the aforegoing, such plans and supporting documentation may be required by the Head: Development Planning Environment and Management to be certified as being correct by an appropriately recognised/registered Environmental Consultant.

(d) The conditions referred to in paragraph (b) hereof may be such as to :-
 (i) restrict the form or nature of the building or structure;
 (ii) limit the size and/or shape of the building or structure;
 (iii) prescribe or restrict the materials of which the building or structure is to be constructed;
 (iv) determine the siting of any building or structure and of any soak pits or other drainage works;
 (v) prohibit or control any excavation on the site, the construction of any roadways, paths and other garden features;
 (vi) prohibit or control the removal of any natural vegetation;
 (vii) control any other aspects which the Head : Development Planning Environment and Management considers to be desirable.

(e) In any approval or any conditions as may be specified by the Head: Development Planning Environment and Management above, the applicant shall enjoy a right of appeal to the KwaZulu-Natal Planning and Development Appeal Tribunal as established in terms of section 100(1) of the KwaZulu-Natal Planning and Development Act No. 6 of 2008.

2.3.2.4. Ecosystem services provided by D'MOSS

Ecosystem services are the benefits provided by healthy biodiversity to all living things. There is a growing recognition of the value of ecosystem services to human wellbeing in terms of health, social, cultural and economic needs. In 2010, the international initiative called 'The Economics of Ecosystems and Biodiversity (TEEB) indicated that investment into ecosystem conservation and restoration must be made to support key development goals such as food and water security, wastewater treatment as well as climate change mitigation and adaptation. Ecosystem services, and their associated biodiversity, provide probably the most significant buffering effect against the negative impacts of climate change for local communities and infrastructure. Ecosystems services provided by D'MOSS were valued at ~R3.1 billion per annum in 2003, excluding the contribution made to the tourism sector.

These ecosystem services include soil formation, erosion control, water supply and regulation, climate regulation, cultural and recreational opportunities, raw materials for craft and building, food production, pollination, nutrient cycling and waste treatment. Importantly the protection of our natural environments will make a significant contribution to our ability to adapt to climate change impacts (known as ecosystem-based adaptation or EBA), which are predicted to include higher temperatures, sea level rise and more intense rainfall. In order for the D'MOSS to continue to deliver these services it needs to be sensitively integrated and effectively managed within the metropolitan area.

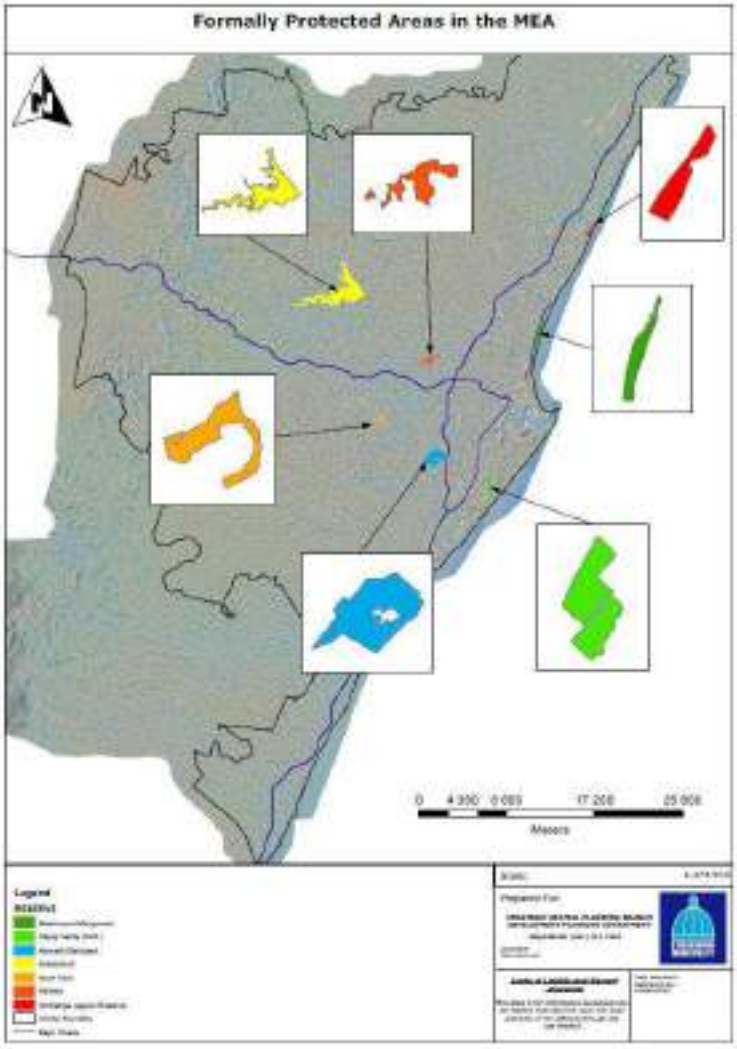


Figure 21: Formally Protected Areas in the EMA

2.3.3. Key environmental challenges facing the EMA

Notwithstanding their value, the EMA's natural environments have been severely impacted by landscape change, habitat fragmentation, invasive alien species, over exploitation and pollution. Climate change is a significant and increasing threat. Many people have benefited over the last century from the conversion of natural ecosystems to human-dominated ecosystems and from the exploitation of biodiversity. This has occurred because of the lack of regard for the value of these systems, which makes greenfields development an attractive option. At the same time, however, these gains have been achieved at growing cost in the form of losses in biodiversity, degradation of many ecosystem services, and the exacerbation of poverty for other groups of people (Millennium Ecosystem Assessment, 2005). The situation in eThekwini Municipality is no different to the global assessment and suggests that current policy, law, governance and environmental management efforts have been inadequate to prevent this degradation.

High levels of transformation (Figure 2) and fragmentation (Figure 3) of Durban's landscape mean that the ability of species and ecosystems to retreat and adapt to climate change is severely compromised. This has implications for the ecosystem services that D'MOSS can provide. For example, high levels of development on Durban's beaches prevent the natural migration of dunes resulting in severe damage to the coastline during storm surges, increased wave intensity and sea-level rise (Govender, 2009). These are all factors that are predicted to increase in frequency due to climate change. Beach biodiversity is lost when beaches lose sand through erosion from the increased energy of the coastline during storm events, reducing the ability of beach ecosystems to provide essential services. Similarly, fragmentation of natural areas due to degraded landscapes isolates one habitat patch from others, thereby dividing previously large, continuous areas into separate, smaller fragments. This reduced connectivity could have adverse effects on the ability of species to retreat and re-establish in other areas when climatic conditions become unsuitable at existing locations.

Invasive alien plants in South Africa now infest over 20 million hectares, as reported by the Agricultural Research Council (ARC). The report, released in July 2010, was commissioned by the Department of Water Affairs. A recent survey by the EM found that as much as 48% of selected conservation areas were infested with invasive alien plants. Many alien plant species are predicted to expand their density and distribution under climate change scenarios, thereby impacting further on local biodiversity. The implication of an increased distribution of invasive alien species implies transformation of indigenous vegetation, a possible decrease in ecosystem function with reduced diversity and thus a decrease in the provision of ecosystem services.

At present a mere ~10% of the D'MOSS area is protected (e.g. through proclamation as a protected area, appropriate conservation zoning, conservation servitudes and land acquisition) whilst only ~7% of D'MOSS is managed for conservation. Increasing the total area of D'MOSS that is protected and managed for conservation is critical if the biodiversity of the EMA, and its associated ecosystem services, are to be protected. This is a huge challenge considering the rapid urbanisation and transformation that is taking place within the city in order to meet development and service delivery goals, as well as growing threats such as invasive alien species and climate change.

2.3.3.1. Why crossing environmental boundaries matters

The research on planetary boundaries and a “safe operating space for humanity” initially published in 2009 (Rockström et al., 2009) and recently revised (Steffen et al., 2015) has brought to the fore serious concerns around thresholds beyond which the world becomes an increasingly unsafe place for the human species. Four of nine planetary boundaries have now been crossed at a global level as a result of human activity (Figure 5). These four are: climate change, loss of biosphere integrity (loss of biodiversity), land-system change (transformation of natural areas resulting is loss of forests, wetlands etc.), and altered biogeochemical cycles (phosphorus and nitrogen loading to the environment as a result of agricultural and industrial pollution). Two of these, climate change and biosphere integrity, are what scientists call "core boundaries." Significantly altering either of these decreases the ability of humans to develop and thrive. In such a high-risk world, everyone is negatively impacted, but it is the poor and the vulnerable that are most likely to be worst affected because they have the least ability to adapt to and protect themselves from extreme events and slow onset disasters, and because they are the most reliant upon natural systems for their survival. This is particularly relevant to African cities, like Durban, where a large percentage of the population live below the poverty line.

In Durban, performance against scientifically derived targets for 14 vegetation types that occur in the eThekwini Municipal Area show alarming statistics (Table 1). These targets set by Ezemvelo KZN Wildlife for the protection of different vegetation types (given as a percentage of the original extent) have already been exceeded for three vegetation types in the EMA: KZN Sandstone Sourveld, and North and South Coast Grasslands i.e., they are in all likelihood beyond the natural threshold required for long-term survival (Table 1). This has and will continue to lead to abrupt and irreversible environmental changes all of which will be detrimental to the citizens of Durban. However, this research (both globally and locally), can provide an opportunity to change the dangerous trajectory that we are heading in. Opportunities exist to fundamentally change the framework for action to reduce risk, while developing sustainably and promoting resilience.

Table 6: Targets and deficits for 13 vegetation types in Durban

Vegetation types (Boon, in prep)	Original distribution (ha) – circa 1850	Target[d] (% of original)	Area required to meet target (ha)	Area remaining (ha)	Percentage remaining	Shortfall/surplus (ha)
Coastal Forest and Grassland mosaic[a]	**20690**	71.69	**14833**	**1691**	**8**	**-13141**
Dune Forest	2041	69.2	**1412**	**585**	**29**	**-827**
Eastern Scarp Forest_above450 m	1432	61.61	**882**	**2736**	**191**	**1854**
Eastern Scarp Forest_below450 m	2978	61.61	**1835**	**8262**	**277**	**6427**
Eastern Valley Bushveld	59870	25	**14968**	**26924**	**45**	**11957**
Grassland_othergeology_above450 m[b]	6568	25	**1642**	**1661**	**25**	**19**
Grassland_othergeology_below450 m[c]	46060	25	**11515**	**912**	**2**	**-10603**
KZNSS_above450 m	32540	25	**8135**	**6873**	**21**	**-1262**

KZNSS_below450 m	34070	25	**8518**	**2933**	**9**	**-5585**
Mangroves	492	100	**492**	**73**	**15**	**-419**
Sub-tropical Dune Thicket	192.3	100	**192**	**192**	**100**	**0**
Sub-tropical Seashore Vegetation	16	100	**16**	**16**	**100**	**0**
Swamp Forest	55	100	**33**	**55**	**100**	**22**
Wetland	16400	24	**3936**	**11190**	**68**	**7254**

a. **Coastal Forest and Grassland mosaic (Boon, in prep) = Northern Coastal Forest (Scott-Shaw & Escott 2011)**
b. **Grassland_othergeology_below450 m (Boon, in prep) = Indian Ocean Coastal Belt Grassland in part (the other part is KZNSS below 450 m) (Scott-Shaw & Escott 2011)**
c. **Grassland_othergeology_above450 m (Boon, in prep) = Ngongoni Veld and KZN Hinterland Thornveld (Scott-Shaw & Escott 2011).**
d. **Some point to take note of regarding conservation targets:**
 - **An increasingly fragmented landscape and alteration of historical fire regimes has resulted in the encroachment of scarp forest into areas previously dominated by grasslands. This accounts for the increase in the current extent of scarp forest relative to the historical extent.**
 - **When setting targets for forest vegetation types, Berliner (2005) adjusted the tradition species-area curve targets to account for factors such as rarity of forest types, fragmentation, and historical reduction in extent (since 1890).**
 - **Vegetation types that were split based on the 450 m altitudinal break were assigned the same target, with the intention of accounting for the floristic differences across the altitudinal divide.**

Table 6 presents statistics and associated targets for the vegetation types of the EMA. Vegetation types are used as coarse surrogates for many species which do not have explicit species targets in conservation planning. In other words, it is assumed that species, whose ranges are restricted to a vegetation type like Dune Forest, will be covered by selecting Dune Forest areas for protection. Conservation targets refer to the minimum area required to be conserved of a habitat type in order to ensure the persistence of that habitat and the species represented therein. The targets as per the table below were aligned, as far as possible, with the provincial targets extracted from Scott-Shaw & Escott (2011). Targets for forest types were extracted from Berliner (2005). Certain vegetation types were split for the municipal plan based on the 450 m altitudinal break, above and below which the climate differs significantly. These vegetation types were assigned the same target, above and below the altitudinal break, with the intention of accounting for the floristic differences across the altitudinal divide. It was not possible to accurately model the historic extents of Swamp Forest, Sub-tropical Dune Thicket and Sub-tropical Seashore Vegetation. Given the significant level of transformation along the coast (evident from the Dune Forest and Coastal Forest and Grassland mosaic statistics) and within Wetland systems (Swamp Forest is typically associated with these systems) a conservative approach of setting a 100 % target for remaining patches of the three vegetation types was taken. This means that in order to achieve conservation targets for these three vegetation types, all remaining patches will need to be conserved.

Based on the vegetation descriptions by Boon (2014) a number of vegetation types are different to those described in Scott-Shaw & Escott (2011). In this situation the targets used for the vegetation types described by Boon (2014) where inherited from the most similar vegetation type in Scott-Shaw & Escott (2011). Vegetation types highlighted in red (negative hectares in the final column) indicate that biodiversity targets have been exceeded (i.e. area remaining is less than is required to meet targets).

For aquatic systems, results from bio-monitoring programmes focusing on the rivers and estuaries of Durban have revealed that these ecosystems are in a particularly poor state. Using aquatic bio-monitoring

methodologies, the EM found in 2010 that 71 of 175 (or 40%) of its monitoring sites on its rivers were considered to be in a poor condition and only six (or just over 3%) were classified as near natural. Rivers were found to be experiencing multiple impacts including spills and illegal discharges, solid waste dumping, wastewater treatment works not operating to specification or license conditions, sand mining, realignment of watercourses, flow reduction through dams, removal of riparian flora, and infestation by alien flora and fauna.

In a survey of the 16 estuaries in the EMA published in 2010, only three, together making up 10% of the total municipal estuarine area, were classified as in good condition (none were classified as excellent). Because of the condition of the larger systems such as the uMngeni and Durban Bay, a total of 50% of the municipal estuarine area must be considered highly degraded. The lack of national and provincial data prevents a direct comparison being made. Expert opinion, however, would suggest that based on the current ecological condition of Durban's aquatic ecosystems, they are amongst the lowest ranked systems in the country. This has major implications for communities depending directly on water from these systems, and also undermines tourism opportunities on municipal beaches.

Water quality covers a broad spectrum of parameters, which are largely influenced by the activities of the EM. Eutrophication as a result of nutrient enrichment is having a detrimental impact on rivers and estuaries in the EM. Reducing nutrient loading, particularly at treatment works across the Municipality, will go a long way towards addressing this threat.

Sand mining, both legal and illegal, is also having a major impact on aquatic ecosystems and the delivery of sediment to the coast. Controlling the damage caused by sand mining represents a serious challenge for the EM. The CSIR was commissioned in 2008 to undertake a study of the sand supply from rivers and the implications for coastal sand budgets. The 18 rivers within the EM's jurisdiction supply sediment (an ecosystem service) to the coastal zone, which is important in replenishing sand lost from beaches and coastal dunes through coastal erosion processes. Therefore the sand is important for *inter alia* buffering the impacts of high seas and making beaches attractive to tourists – further ecosystem services. Sediment yields have been increased through poor land management practices, but overall supply to the coastline has decreased by two-thirds of "natural" yields due to sand mining and the 12 large dams that have been constructed on Durban's rivers which act as sediment traps. Given that discharge of sediment from rivers dominates sand supply, it is predicted that the reduction in sand supply could result in mean coastal erosion of > 1 m/yr. The report found that the combined impacts of sea level rise and increased sea storminess are likely to have severe consequences in terms of coastal erosion, initially similar to and eventually exceeding the erosion suffered in KZN during 2007.

Quantitative targets set by Ezemvelo KZN Wildlife for the protection of different vegetation types (given as a percentage of the original extent) have already been exceeded for three vegetation types in the EMA: KZN Sandstone Sourveld, and North and South Coast Grasslands.

2.3.4. Opportunities for innovation

The EM has made some progress in reversing the loss of natural areas by using various instruments such as controlled development areas, environmental servitudes, environmental special rating areas, environmental

rates certificates, environmental land acquisition and including environmental considerations in preparing the municipal valuation roll. Furthermore, several steps toward improved natural asset management have been initiated, including active reforestation of certain open spaces (e.g. the Buffer Zone surrounding the Buffelsdraai Landfill Site), and improved management and restoration of other areas (e.g. through the Working on Fire and Working for Ecosystems programmes).

It is acknowledged that current indigenous biodiversity will be a critical lifeline to humans should the various predicted climate change scenarios unfold. As such, the EPCPD has engaged in various research programmes, including a research partnership with the University of KwaZulu-Natal, in order to gauge if an adequate natural resource base will be secured over time. These works includes a variety of ecosystems-based research, as well as monitoring and reporting on the state of key biodiversity indicators, For example, see the annual publication of a State of Biodiversity report. Research on novel ecosystems, restoration ecology, reforestation, as well as human ecological systems are also ongoing. Below is an example of how ecosystem-based adaptation is being implemented in Durban.

2.3.4.1 Ecosystem-based adaptation (EBA) and the Green Economy

Given the current threats to biodiversity, and the pending impacts anticipated as a result of climate change, the EM must urgently invest in protecting, restoring and managing ecosystems to enhance adaptive capacity in a cost-effective and sustainable manner. Ideally, this will be achieved by transitioning to a "green" economy, primarily through the building of a new economy based on bio-infrastructure, which increases the supply of ecosystem services. The use of bio-infrastructure represents a strategic opportunity as it can be expanded without straining already limited natural resources. In fact, the use of bio-infrastructure can actually increase the supply of these resources.

In this regard, the Restoration Ecology Branch of the Environmental Planning and Climate Protection Department (EPCPD) was established in 2011. This was in response to the realisation that restoration of urban open space ecosystems was fast becoming a priority in cities across the globe and Durban was no different. Of particular concern were the observed negative impacts of climate change, habitat fragmentation, nutrient enrichment and invasive species. It became clear that cities would need to learn to recognise, understand and then develop management plans for a suite of novel ecosystems, while at the same time conserving existing biodiversity present within the relevant established vegetation types. It was recognised that novel approaches would be required, to ensure that natural corridors and open spaces remain optimally functional and are able to deliver important environmental services to local communities, in the face of ongoing densification and human population growth. Clearly, the only reasonable means to achieve such objectives was to engage local communities' assistance.

An approach was adopted that allowed for training and development of local people and small businesses, to implement the required management interventions. This included the control of invasive alien plant species, planting of indigenous vegetation, as well as fire control in grassland areas. The approach has allowed eThekwini Municipality to deliver on job-creation and skills development imperatives, while simultaneously ensuring maintenance of healthy ecosystems. This is also in line the Sustainable Development Goals (SDGs) adopted in October 2015. Three large-scale programmes, namely the Working for Ecosystems,

Working on Fire, and Community Reforestation Programmes were established (Figures 5, 6, 7 below). These are now integral to the work undertaken by the Restoration Ecology Branch.

The ground-breaking and transformative innovations adopted have already demonstrated how the Municipality can protect biodiversity, adapt to climate change, and optimise sustainable green job creation. As a means to test and reflect on the approaches adopted, ongoing research associated with the range of projects underway is also undertaken. It is anticipated that this research will allow the Restoration Ecology branch to achieve a foresighting function that ensures optimal ecosystem management regardless of future challenges. This will be achieved through i.) developing and implementing policies, plans and projects, for biodiversity and climate protection, ii.) ensuring optimal and appropriate environmental asset management, iii.) undertaking research to improve ecosystem restoration and sustainability, and iv.) optimising co-benefits relating to skills development and job creation.

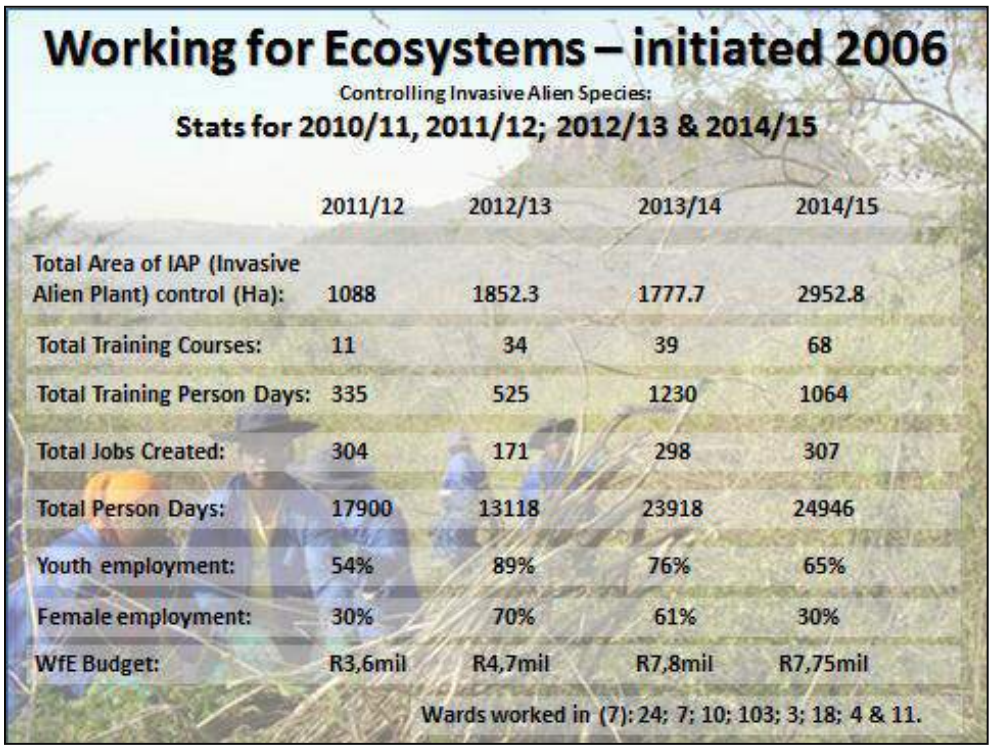


Figure 22: Working for Ecosystems Programme

The key objective of the Working for Ecosystems programme is control of invasive alien plants (IAPs) in key catchment areas, through the involvement and employment of local community members. The WFE programme has a strong focus on SMME development.

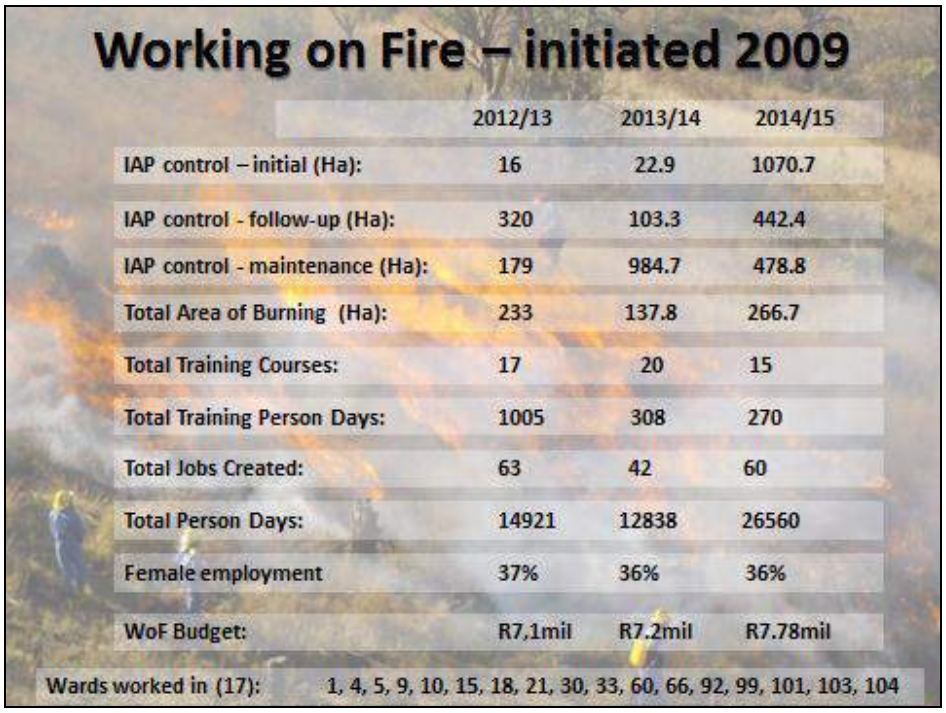


Figure 23: Working on Fire Programme

The Working on Fire programme operations includes the control of invasive alien plants on high priority biodiversity sites. This is done through various means including manual, chemical to mechanical. Furthermore, the WoF programme applies fire, during the dry season, as a tool to manage grasslands and to control invasive alien plants (IAPs) infestations.

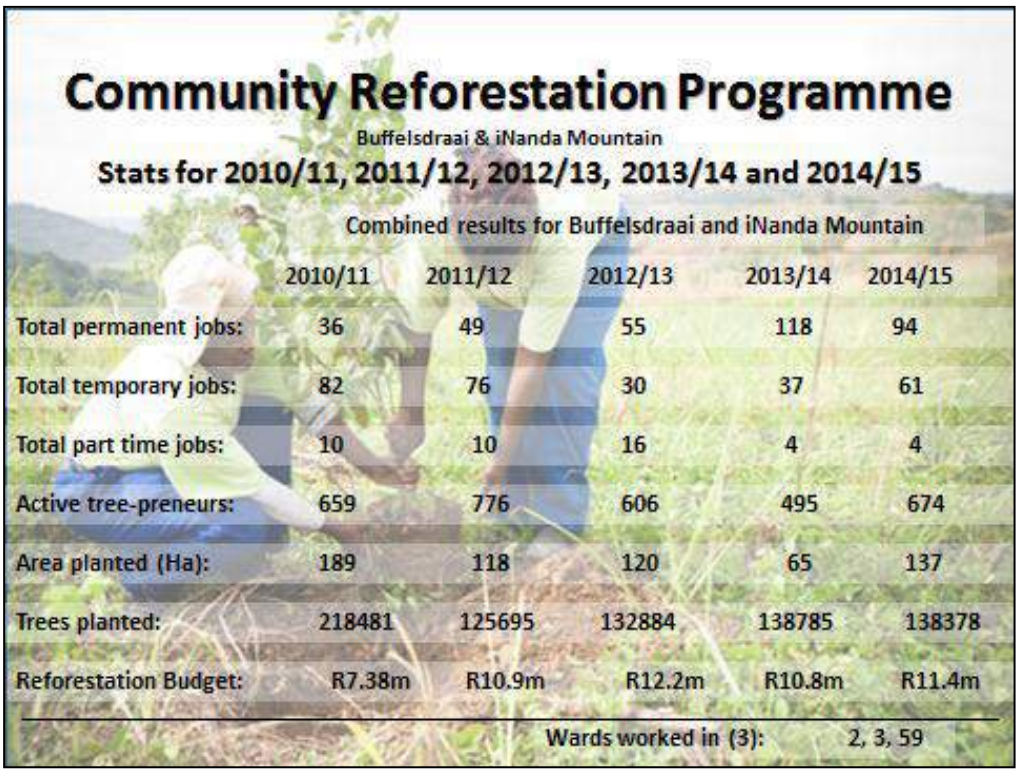


Figure 24: Community Reforestation Programme

The EPCPD has partnered with the Wildlands Conservation Trust in order to restore selected indigenous forest areas in the EMA . The reforestation programme has adopted the Community Ecosystem Based Adaption (CEBA) model, which demonstrates the strong and vital link between socio-economic upliftment and biodiversity conservation, enhanced ecosystem functioning and carbon sequestration. 'Treepreneurs' propagate trees at their homesteads, through the Indigenous Trees for Life Programme developed by Wildlands Conservation Trust. Treepreneurs then trade their trees for basic food items, clothes, building materials and even school fees. Ninety percent of people who benefit from this project were earning wages below the poverty line, and are therefore some of the most vulnerable communities in the country. Many of these Treepreneurs are women and children, unemployed adults, and pensioners.

2.3.5 Strategic Environmental Assessment

The intention of this summary is to outline eThekwini Municipality's approach to its Strategic Environmental Assessment and other elements of related work that were mentioned in the COGTA assessment of the SDF.

2.3.5.1 Background to the SEA process in eThekwini Municipality

In 2009, eThekwini Municipality initiated its first effort to undertake a Strategic Environmental Assessment (SEA) and appointed a team of local and international experts to work with officials from the municipality to develop a framework and methodology that would allow the sustainability of the municipality's spatial plans to be assessed according to their impacts on the provision of ecosystem services. Although this work provided a useful starting point for the SEA process, global thinking in the field of global environmental change has advanced significantly since then and existing SEA methodologies are not adequately responsive to the new thinking in the field. This includes the concept of thresholds and planetary boundaries (e.g. Rockström *et al.*, 2009; Steffen et al, 2015) and the growing focus on natural ecosystems as foundational to human wellbeing and development, for example through programmes such as The Economics of Ecosystems and Biodiversity (TEEB) and the 'Natural Capital' Project. As a result, eThekwini Municipality has been intent from the outset to develop an SEA methodology that incorporates such global thinking. The challenge however is that very few of these global ideas have been translated into the local context and therefore eThekwini Municipality's approach is a highly exploratory and evolving one.

2.3.5.2 Related work elements

Safe Operating Space study (July 2013-Jan 2014)

As part of trying to grapple with concepts such as thresholds and planetary boundaries, eThekwini Municipality initiated the *'Safe Operating Space study'* in July 2013 to see whether it was possible to inform decision-making and long term city planning by defining a 'safe operating space' within which the capacity of natural ecosystems to provide life-supporting services is protected, optimised and sustained as the city and economy develops. The Council for Scientific and Industrial Research (CSIR) was contracted for this work. A number of challenges were experienced in defining 'linear' thresholds and it was acknowledged that an integration of social, economic and environmental factors was instead needed to assess sustainability in the Municipality. Through this thinking, the Safe Operating Space study evolved into the 'Sustainable Horizons Project'.

Sustainable Horizons project (Feb 2014-June 2015)

The aim of this project is to develop and implement an integrated indicator system for the eThekwini Municipal Area that will help to show progress towards a viable and improved future. Given the challenges and limitations of monitoring progress in a sectoral way, the model that has been created offers a more 'concrete' way to measure sustainability performance (across social, economic and environmental indicators) in an integrated way. Under an existing contract with CSIR, the model has been developed but is still undergoing further exploration to determine whether its outputs are useful in guiding more strategic decision-making. EThekwini Municipality is currently in the process of securing additional support from CSIR to continue this work. A key component of the next phase of the Sustainable Horizons project will be to explore the extent to which the concept of 'thresholds' can be included in relation to key indicators. Apart from providing a high level sustainability assessment for the Municipality, the exploration regarding thresholds will be useful in terms of the proposed SEA methodology.

Note: *Although the above projects may serve to inform elements of the SEA, they do not replace the SEA process itself and a separate methodology has been developed for this purpose.*

2.3.5.3 The Strategic Environmental Assessment for eThekwini Municipality

EThekwini Municipality is in the process of working with a local and global team to prepare a methodological approach for the SEA. The methodology will draw strongly on global thinking around thresholds and will attempt to articulate and understand some of the key linkages between the strategic vision for the Municipality (and its socio-economic priorities) with the ecosystems that provide services that are key to supporting this vision. This will provide the foundation for assessing the current opportunities and threats related to important ecosystems. The procurement process is currently underway for this work and funding has been committed from the Integrated Cities Development Grant (ICDG). The local and global partners for this work will leverage co-funding and additional resources to add value to the work. Although the ICDG funding extends to June 2018, the team will aim to have some preliminary results by March 2017 so as to provide early input into the revised Spatial Development Framework for eThekwini Municipality.

2.3.5.4 The role of an Environmental Management Framework (EMF)

At a meeting held on 12th May 2015 between eThekwini Municipality (represented by the Environmental Planning and Climate Protection Department and the Strategic Spatial Planning Branch) and the Department of Economic Development, Tourism and Environmental Affairs, it was agreed that there is potential value in an EMF if it is used as a decision-informing tool and if it is used to incorporate and formally gazette elements of environmental policy and information. However, it was also acknowledged that the current SEA process needs to provide the framework/context for the EMF, especially since the SEA is likely to shift thinking around the relationship between environment, social and economic spheres. On this basis it was agreed that work on the EMF should begin once the SEA process has produced initial outcomes and also once there is additional human resource capacity in the EPCPD to oversee the work required by an EMF. To this end, the EMF is seen as an 'end tool' in this process and work will not begin on this until the timing is appropriate.

2.3.6 Resource Management Plans for the Protection of Dams

The Department of Water and Sanitation (DWS) has identified that Resource Management Plans should be developed for all dams to fulfil the purpose of the National Water Act i.e. the protection of water resources. A Resource Management Plan (RMP) is the legal management tool that should balance the primary function of a dam with the economic opportunities that may be harnessed from that dam. An RMP is *restricted* to the dam and the property over which is it located i.e. an RMP is undertaken for the dam and the dam's "purchase line" (Umgeni Water 2013). There are four key dams located in eThekwini Municipality:

- Hazelmere Dam which supplies water to the North Coast;
- Inanda Dam which supplies water to the Central Area;
- Nungwane Dam which supplies water to the South Coast; and
- Shongweni Dam which is a recreational dam.

All four dams are operated by Umgeni Water. eThekwini Municipality, in partnership with DWS developed RMPs for Hazelmere Dam and Inanda Dam in 2008 but these RMPs were never gazetted as required by DWS. A process to review and gazette these two RMPs was initiated by DWS in 2013 and is due for completion sometime soon. Umgeni Water is planning to commence with the development of the RMP for Nungwane Dam in the 2016/2017 financial year. A RMP for Shongweni Dam has not been identified as this dam is a recreational dam.

2.4 Climate Change

Climate change is recognized as the major global environmental challenge of the 21st century. It is a significant and increasing threat to Durban's communities, biodiversity, infrastructure and systems. Climate change will exacerbate other existing challenges, like biodiversity loss and ecosystem degradation, and in turn be impacted by the loss.

Climate change is likely to cause a number of challenges for eThekwini Municipality, linked to global impacts such as increased temperatures, extreme weather events (e.g. flooding and drought), sea level rise and climate variability. As such, climate change runs the risk of undoing all of the development gains made since the advent of democracy, and for a Municipality such as eThekwini climate change adaptation in all sectors will have to become one of the Municipality's top development priorities.

Temperatures in Durban are likely to increase by 1.5^0C and 2.5^0C by 2065 and by 3.0^0C and 5.0^0C by 2100. Projected annual rainfall changes are likely to include an increase in aggregated rainfall by 2065 with an increase of up to 500 mm by 2100. This increase is likely to be manifested as an increase in extreme rainfall events and stream flow intensity across the municipal area with prolonged dry spells between rainfall events. Sea level rise along Municipality's coastline is already occurring at 2.7 cm per decade and may accelerate into the future.

Climate change impacts for the EM may include:

- An increase in the frequency and intensity of floods and droughts;
- A decrease in water availability due to changed rainfall patterns and increased evaporation; this will affect subsistence dry land farmers the most.
- An increase in erosional capacity of river courses, resulting in the loss of more top soil, thus decreasing the agricultural value of land and increasing siltation in dams.
- Infrastructural damage as a result of extreme weather events causing flooding, affecting human well-being and safety as well as insurance costs;
- An increase in erosion of coastal areas due to sea-level rise;
- Higher energy consumption due to increased cooling load for air-conditioning and cold storage;
- An increase in economic losses due to property damage and decreased tourism revenue;
- An increase in heat-related vector-borne (e.g. malaria) and water-borne (e.g. cholera) illnesses;
- An increase in heat stress, leading to dehydration, particularly for those that reside in the city, as well as children and the elderly;
- Higher temperatures increase the formation of polluting chemicals such as (ground level ozone which results from the interaction of NO_X and VOC's in the presence of sunlight) this with the increased temperatures may increase morbidity and mortality from respiratory diseases
- Changes in the geographical distribution of plants and animals with extinction of species that are unable to move and an increase in the prevalence of alien invasive species. This will negatively affect the biodiversity of the eThekwini Municipal Area and the associated goods and services;
- Further loss of critically endangered grassland habitats as they are outcompeted by woody species able to utilize the higher concentrations of CO2 in the atmosphere.
- A reduction in yield of staple food crops, such as maize;
- Changes in the optimal planting and harvesting dates for crops as well as land suitable for crop production;
- Heat stress increasing livestock and poultry mortality rates;
- Deterioration of foods leading to increased incidents of food-borne diseases;

The areas particularly vulnerable to sea-level rise are developed beach front properties, estuaries and coastal dune ecosystems. The majority of coastal land is developed in Durban, and sea level rise puts this infrastructure, including the Durban Harbour, at risk. Modelling sea level rise has indicated that shoreline developments could be at risk from raised sea levels and increased storm surge. In response to this risk Shoreline and Estuary Management Plans are being prepared to determine what adaptation interventions if any are required or will be required into the future.

Greenhouse gas emissions, such as carbon dioxide from burning of fossil fuels and methane e.g. from organic waste contribute towards climate change. In EM per capita emissions are equivalent to cities with developed economies. There is therefore a need to reduce the greenhouse gas emissions in the eThekwini Municipality through mitigation activities, focussing on the generation and use of energy.

To respond to these changes EM initiated the Municipal Climate Protection Programme (MCPP) in 2004. This is a phased programme, which has focused on climate change adaptation and enhancing the city's

ability to cope with climate change impacts. The likely climate change impacts have been assessed and plans, programmes and projects have been developed to assist the Municipality in dealing with these impacts.

The mitigation and adaptation work streams of the MCPP are located in the Energy Office and the Environmental Planning and Climate Protection Department respectively. This latter office has advanced the adaptation agenda with the development and approval of the Durban Adaptation Charter during United Nations Framework Convention on Climate Change COP 17/CMP 7 in December 2011. The Charter which is currently has over 1000 signatory cities from 45 countries globally, promotes ten key local government adaptation interventions, and marks a milestone in the advancement of the adaptation agenda in the international climate change debate. This milestone was vindicated with the approval of a standalone goal for adaptation and a mandate for cities within the Paris Agreement of United Nations Framework Convention on Climate Change's Twenty-First Conference of the Parties (COP21). The terms of this agreement, to which South Africa is a signatory, effectively become the framework for implementing the City's climate change work.

The EPCPD and the Energy Office have jointly developed the Durban Climate Change Strategy (DCCS) as an integrated mitigation and adaptation strategy in a participatory process. The DCCS was approved by Council in 2015. The vision of the Durban Climate Change Strategy is:

> "To transform Durban's governance, social, development and economic systems in order to effectively respond to climate change."

The following mission statement has been developed to support the Vision:

> "By 2020 there must be a fundamental change in Durban's governance, social, development and economic systems in order to contribute to the goal of limiting global average temperature increase to less than 2°C[1], minimising dangerous climate change and adapting to climate change impacts. This will be achieved by increasing the adaptive capacity of the city, enhancing the integrity of the city's environment and building a low carbon economy that provides sustainable livelihood opportunities and ensures well-being for all. All organisations and residents of Durban should be empowered to respond to climate change causes and its impacts."

The DCCS was developed around ten interrelated themes: Biodiversity, Sea Level Rise, Water, Health, Food Security, Energy, Transport, Economic Development, Waste & Pollution as well as Knowledge Generation and Understanding. For these themes, objectives as well as responses have been developed. Many of these responses have spatial implications.

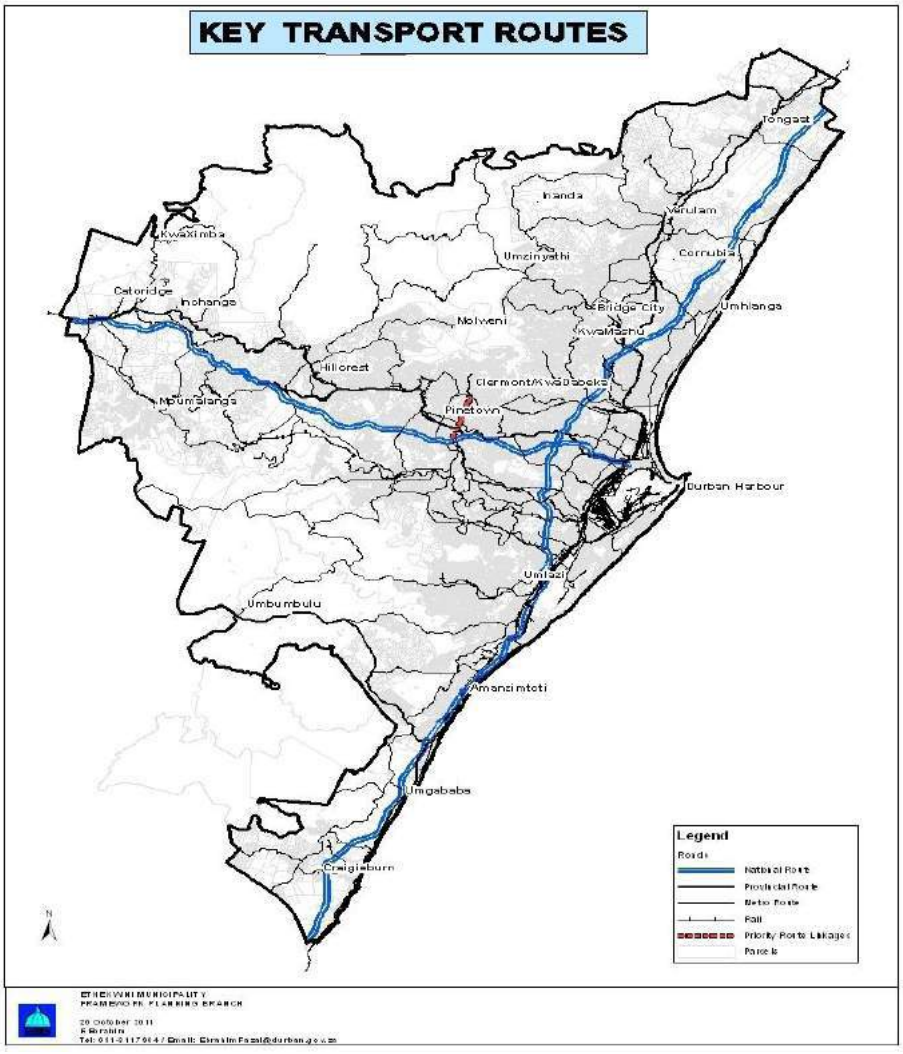
Currently, Implementation Plans are being developed for the different components of the DCCS. The Implementation Plan will indicate spatial implications that will inform the SDF.

Other climate change initiatives include a focus on developing a robust Community and Ecosystem Based Adaption (CEBA) programme, developing and implementing the densification strategy land use management and developing a Sustainable Energy Plan for eThekwini Municipality.

[1] Current target set by the United Nations Framework Convention on Climate Change (UNFCCC).

2.5 The Movement Network System

EThekwini Municipality has a comprehensive transportation network comprising private, public and freight transport which traverse along municipal, provincial and national roads as well as an expansive rail network. The road and rail network are well developed, despite the significant topographical challenges. These networks have a well-articulated hierarchy, the challenge however, is to ensure maximum accessibility of goods, services and destination points to all residents of the Municipality largely by linking land use and transport. This is to enable people and goods to be moved more efficiently and promote greater integration and accessibility. The elements of the transport system are described below:



Source: eThekwini Municipality Development Planning and Environment

Figure 25: Key Transport Routes

2.5.1 Public Transport System

The primary mode of travel by residents of eThekwini is public transport namely, rail, bus and taxi. The taxi and bus route system provides extensive coverage throughout the metro area. The goal for public transport, inter alia, is the use of appropriate modes of transport for different levels of demand, elimination of inefficient competition between modes, promotion of public transport over private transport, catering for the needs of travellers, including the special needs of some and the management and regulation of all modes of transport.

There are approximately 1400 bus service routes which are serviced by approximately 200 operators in a mix of subsidised contracts and unsubsidized services. There are approximately 120 taxi associations serving the municipal area. The current public transport system is economically inefficient with many services in direct competition with each other, resulting in unprofitable rail and bus trips and in taxis competing fiercely on some routes for passengers. There has, however, been good progress over the last 5 years in the recapitalisation of rolling stock with the new taxis, municipal buses and particularly, with the commuter rail fleet. Against this background, proposals have been developed to rationalise and restructure the public transport system and services in order to address some of the fundamental issues.

The eThekwini Transport Authority is re-structuring its Public Transport in eThekwini Municipality in line with the vision of the National Department of Transport. The National Department of Transport has set out a process to assist in translating the public transport vision articulated in the National Public Transport Strategy (2007).

2.5.2 Freight Transport System

Durban is the trade gateway for the Southern African region, as the busiest port in terms of cargo value and shipping activity. One of the goals for transport in eThekwini, is to develop an efficient and integrated freight transport system that will ensure regional economic stability. The region's transportation system requires the optimum integration of the different modes of transport that includes road, rail, aviation, maritime and pipeline with the appropriate modal balances.

To this end and in line with legislative provisions, the eThekwini Transport Authority (ETA) has developed an Integrated Freight and Logistics Strategic Framework and Action Plan for the entire eThekwini Municipal area.

This plan focuses on: creating an optimal modal split of freight; the enhancement of efficient freight systems; a suitable freight land use structure; and the development of supporting institutions and programmes. The plan aims to improve the port-city interface, industry requirements and how each of these connect with the broader economy of Southern Africa and the world, while still ensuring efficiency and ease of doing business within the municipal area.

The Integrated Freight and Logistics Strategic Framework and Action Plan addresses the following seven implementation elements:

- Infrastructure – road infrastructure, port and rail infrastructure, truck stops, intermodal facilities, truck staging areas, weighbridges and weigh-in-motions, intelligent traffic systems and traffic signage;
- Operations – incident management systems, and freight management systems;
- Policy and Regulation – policy and bylaw revision and the development of truck route hierarchies;
- Land Use – freight land use plan and port land use interface zones;
- Institutional Development – road rail liaison development, incident management, incentives and penalties application, and additional dedicated freight resources to key departments;

- Funding – funding sources, and incentives and penalties; and
- Communications – developing a freight communications strategy.

The implementation of this plan will involve a number of stakeholders from government, parastatals and the private sector. It is anticipated that much of the work will be on the successful implementation of the various elements of the plan from eThekwini Municipality and other relevant agencies.

2.5.3 Air Transport

The King Shaka International Airport (KSIA), is located approximately 30 kilometers north of Durban. Adjacent to the King Shaka International Airport is the Dube Tradeport. The primary objective of the Dube Tradeport is to provide long haul international flights to and from Durban (KSIA) to cater for the increasing air freight demands.

The Trade Zone is linked to the airport's freight component that provides dedicated space for the imports and exports of high value goods. It is envisaged that the Trade Zone will capture local freight currently utilising the OR Tambo Airport. In addition, it is forecasted that the freight handling capabilities of the development will attract industries such as motor components, electronics, clothing, textiles and perishables, all of which are dependent on time sensitive travel. The Dube Tradeport is a strategic investment which intends to serve as a major stimulus for regional economic growth. The following map represents the key transport routes within the Municipality

2.5.4 Maritime Transport

The Port of Durban is Southern Africa's busiest seaport in terms of vessels calling and value of cargo moved. It hosts the continent's largest container terminals, liquid bulk terminals and automotive terminals and these are strategically crucial for both the Southern African region and the Municipality. The Port of Durban is crucial trade gateway for both Southern Africa's and the eThekwini Municipality, and essential in the National Governments medium and long term aims of achieving growth in manufactured exports. The Port of Durban is centrally located in the Municipality and is surrounded by the City of Durban, along with a number of key industrial areas in the South Durban Basin. The functions and services provided at the Port of Durban are among the most important contributors to regional economic growth, economic sustainability and employment creation. The development of a reliable and sustainable road network and supporting land use structure is key going forward.

2.5.5 Passenger Rail System

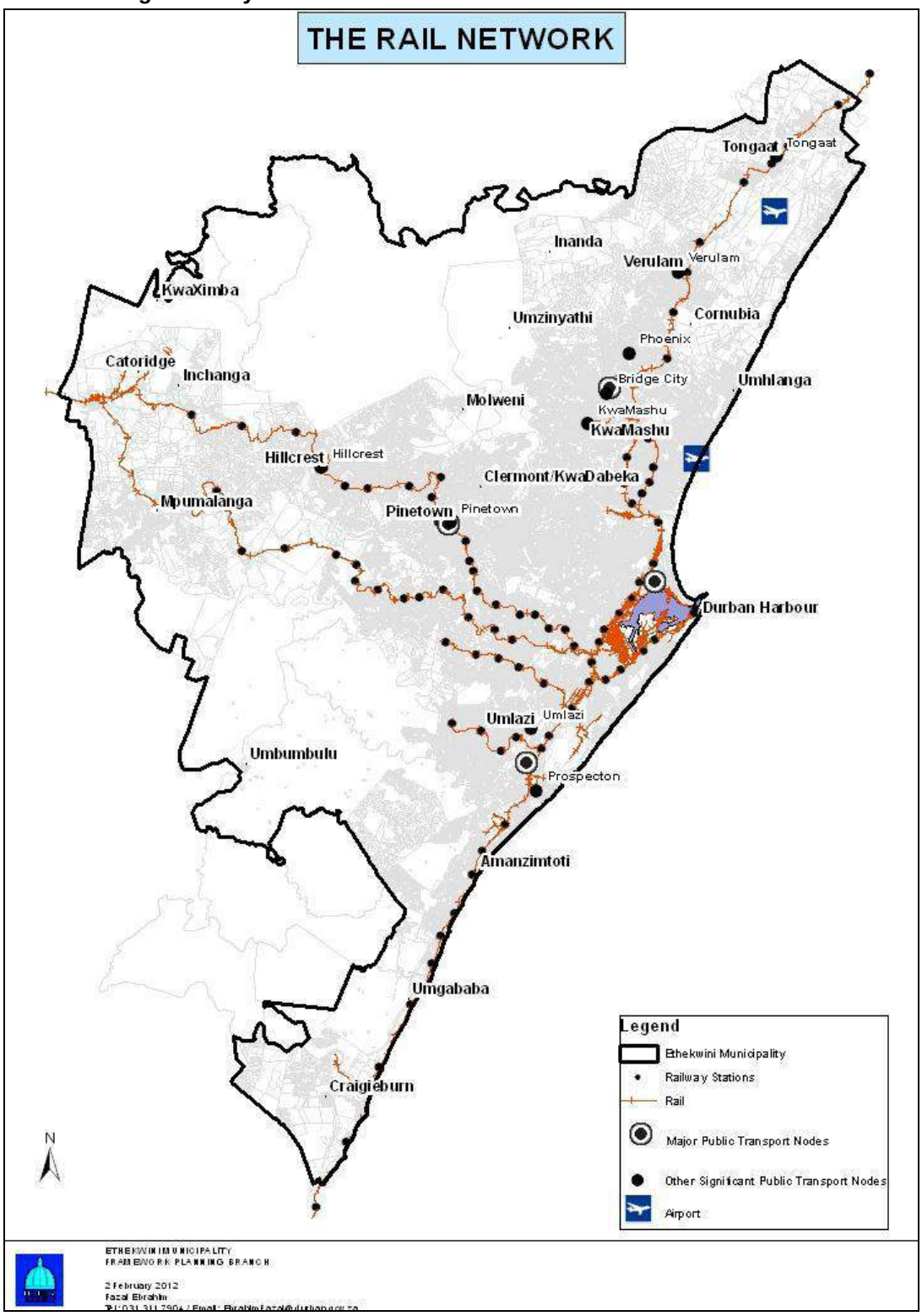


Figure 26: The Rail Network

The Municipality is fairly well serviced with commuter rail services which comprise of the following:

- North-south line following the coastal plain;
- Mainline into the hinterland;
- Circuitous line between Pinetown Central Business District (CBD) and Rossburgh Station;
- Four spur lines into Umlazi, Chatsworth, KwaMashu and Bridge City;
- Spur line to the lower Bluff;
- Section of single line adjacent to North Coast Road.

Currently there are 52 train sets operating on the current rail network serving passenger rail with on-going projects to improve the rail service and customer experience. PRASA has already invested a significant amount of money on station upgrades in Rossburgh, Isipingo, Durban, KwaMashu, KwaMyandu and Moses Mabhida.

Going forward, PRASA has now embarked on a modernization strategy, with specific focus on renewal and replacement of rail infrastructure rather than refurbishment. Key components of this modernisation drive include the procurement of new rolling stock over the next 20 years, new rolling stock depots resignalling programmes, station modernisation and infrastructure such as track and electrical substation upgrades. In the KZN region, the KwaMashu-Durban-Umlazi (including extension to Bridge City) has been identified as the priority corridor where the modernisation programme and projects are being implemented. This rail corridor forms part of the city's C2 IRPTN network. Some key stations forming part of the station modernisation programme include Duffs Road, Umlazi, Berea Road, Merebank, Rossburgh and Reunion stations. Work at Duffs Road Station is currently underway.

Some other projects in the region include station improvement programmes (minor and major upgrades at a number of stations located throughout in the municipal area) and operational maintenance of the rail corridors.

A number of commercialisation projects have also been identified to enhance PRASA's ability to generate revenues from key strategic property assets. In this regard, the implementation of the Durban Station Masterplan has commenced which entails development at Durban Station for more retail, office, educational and other investment opportunities.

PRASA through its subsidiary Intersite Asset Investments (SOC) Ltd, has also embarked on other property development initiatives that focus on partnerships with private developers to develop PRASA properties for commercial purposes. These developments are planned to harness transit orientated developments and will not only generate substantial revenue and capital growth for PRASA but also contribute to city economic regeneration. The recently completed KwaMnyandu Mall at KwaMnyandu station is a case in point of this initiative. Other ongoing projects include the proposed Umgeni Business Park, Umlazi Mall and Berea Mall developments.

Bridge City Rail Link

The Bridge City Rail link, originally proposed in 2001, has been completed and train services officially commenced in February 2014. This R1.3billion project included the construction of a new station building, which is located under the Bridge City Shopping Mall and a 3.5km rail line which ties in at Duffs Road station. The Bridge City project is part of PRASA's overall integrated approach to passenger rail service, in bringing communities closer to integrated public transport solutions, investing in the modernisation of passenger rail services and positioning rail as the backbone for public transport.

The rail link also forms part of the Integrated Rapid Public Transport Network (IRPTN) and Bridge City intermodal hub which will include the various taxi ranks and the Bus Rapid Transit System.

Proposed commuter rail stations along the South Coast Rail corridor

PRASA has recently completed the South Coast Rail Corridor stations feasibility study. This study holistically investigated the feasibility of providing three new rail stations along the south coast rail corridor between Isipingo and Kelso. Specific focus was in the areas of Galleria, Mnini and Rocky Bay. The position for each of the three proposed stations is shown in Figure 32. The proposed implementation for each station varies, and is based on a variety of factors, including the projected passenger demand estimates. Galleria station has been deemed to be the most viable and for implementation in the shorter term.

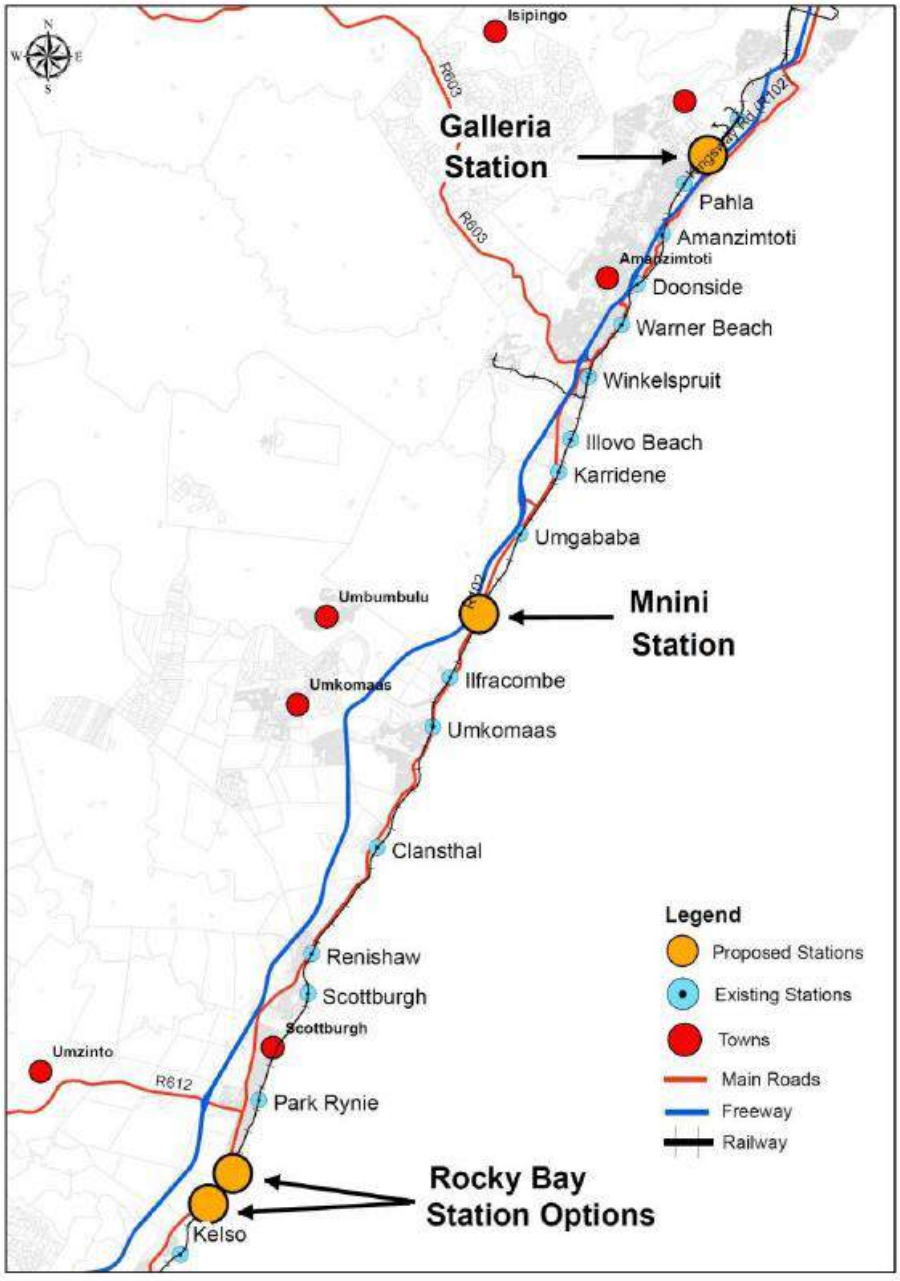


Figure 27: South Coast Rail Corridor Study: Proposed Station Position

KZN Northern Rail Linkages study

PRASA has also concluded a conceptual planning /prefeasibility study for a possible new rail link to the King Shaka International Airport, including connectivity between various northern rail links, Cornubia, Umhlanga and the CBD. Various route alignment and technology options were investigated. The route alignment scenarios is illustrated in Figure 33. The study has recommended that the Proposed Higher Speed Durban-

Umhlanga- KSIA option be considered for detailed feasibility as part of the Durban-Gauteng high speed corridor.

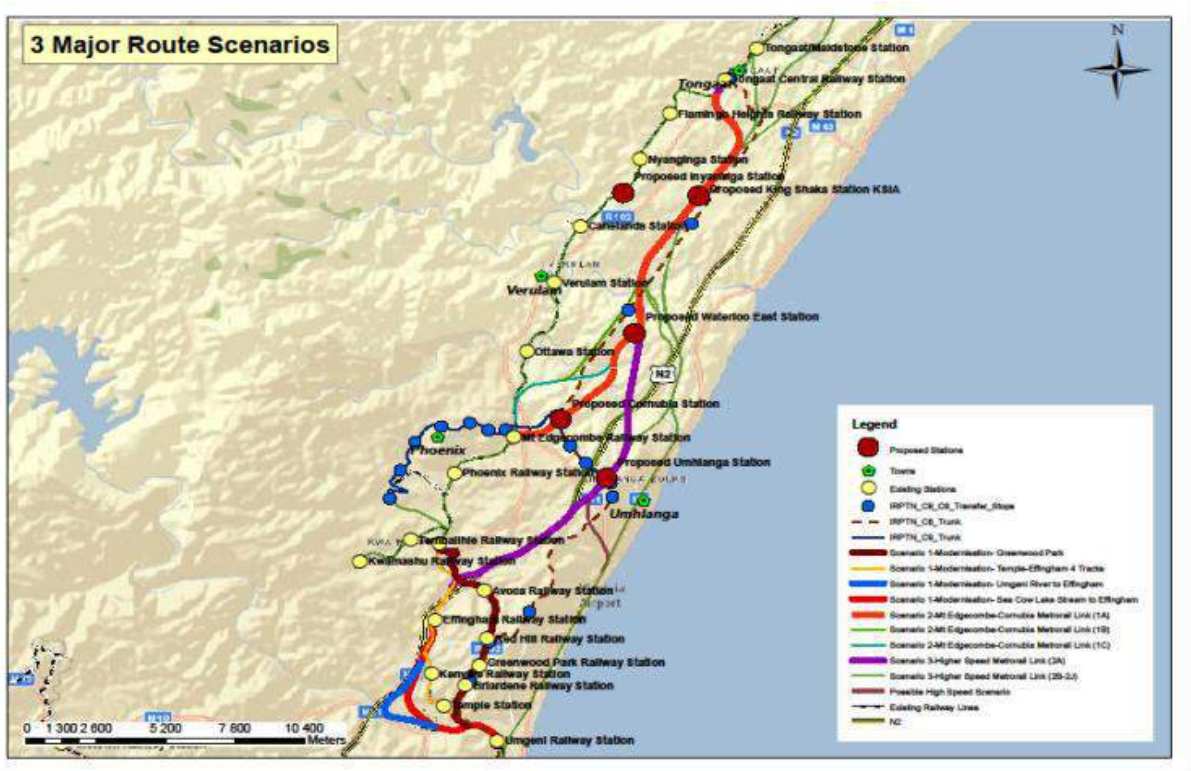


Figure 28: KZN Northern Rail Linkages Study

2.5.6 Non-Motorized Transport (NMT)

The NMT plan has been developed to encapsulate the City's commitment towards NMT, by giving prominence to NMT as an integral part of the City's overall transport system. The plan defines NMT policies, strategies and NMT guideline standards, together with the network development process for implementation for over the next five years.

These key elements have been consolidated into four themes or "*Pillars of Ideology*" which are:

CONNECTING: talks to meeting the basic needs of people, i.e. providing access to goods, services, people and work opportunities, either directly or via other forms of transport.

ENHANCING: is about improving the quality of life, reducing transportation costs by creating viable alternatives, creating safe environments that support and enhance human interactions as well as promoting healthy lifestyles by proving access to social and recreational activities.

GROWING: is about stimulating regeneration of our ailing Cities and economic growth via *inter alia* tourism and other opportunities that ultimately result in the general increase in prosperity of the population

SUSTAINING: is about ensuring long term viability and sustainability of our City and the environment and includes issues of land-use development, emissions reduction, alignment to other sustainable practices and programmes as well as influencing behavioural changes.

The NMT strategies are a set of programs, aligned to the ideology, defining how the objectives are to be met and seeks to address the gap between where we are and where we want to be. The development of a NMT network plan is based on meeting the demands of all existing NMT users as well as promoting the use of all forms of NMT by new users. However, NMT utilisation, whilst overall quite significant, is predominantly focused around pedestrian activity, with other forms like cycling, skateboards and push-scooters, animal powered transport, and human powered goods transport occurring on a very small scale.

Thus, in developing a network plan, the focus has been in the short term to identify key nodes within the Municipality and to provide mixed-used NMT facilities that link these key nodes into the surrounding area. The development of mixed-use facilities (as opposed to dedicated facilities) allows the Municipality to develop a more comprehensive network plan in the short term within its limited funding pool. As demand for other forms of NMT grows, it is anticipated that these networks would be expanded into the wider area surrounding these key nodes, with segregated facilities as demand rises. Once NMT activity across all forms has reached a significant level, the intention is to then create a network that has connectivity across the entire Municipality, with dedicated facilities for the different types of NMT users.

The City has already established a series of cycling routes in and around the Inner City and is currently expanding its network to accommodate both professional and recreational cyclist. The routes have also taken into account those residents that wish to commute using bicycles. The Municipality will also roll-out a staff bicycle programme that will encourage staff to use bicycles as a mode of transport between municipal buildings and facilities.

In terms of the five year implementation plan a total of 88 corridors have been identified, of which 31 have been prioritized to have a high rate of usage benefitting large numbers of existing and potential NMT users distributed across the municipal area. The corridors provide connections between schools, public transport interchanges, commercial centres and residential areas.

2.5.7 Summary of Transport Issues and Trends

ISSUES	UNDERLYING CAUSE	SPATIAL IMPLICATIONS
1. The current Municipal structure results in high social and economic costs especially in terms of Residential Pattern/Housing	• High degree of segregation of places of work and home due to past planning practices that promoted land use and racial zoning.	• Gives rise to long commuting times (between home to work) and imposes travel costs upon commuters • Has largely precluded the development of mixed use environments
	• Poor or no planning with respect to optimizing efficiency for the majority of the population.	• Unsustainable use of resources : Urban sprawl raises the unit cost of servicing and infrastructure • Reinforces the need/ urgency to commute

2.6 Overview of eThekwini Economy

The eThekwini Municipal region is the economic powerhouse of KwaZulu-Natal and also makes a significant contribution to the South African economy. It is a vital link between the regional economies of Pietermaritzburg (and onward to Gauteng) and Richards Bay. EThekwini ranks as the second largest economic centre and is the second most significant industrial region in South Africa. It is a promising global competitor with a world-class manufacturing sector.

EThekwini is home to Africa's first multimodal logistics platform and international passenger airport, Africa's busiest port, and a global conferencing, sporting and tourist destination. It is also a substantial administrative centre, providing key public services within the Metropolitan area as well as to the wider region. It is both a centre for low cost production, as well as a key logistics hub in the national economy. It is home to 10% of all employment opportunities in South Africa.

The key Issues relating to the economy in eThekwini (as elaborated below) include:

1. Persistently high unemployment;
2. 41,8% of population subject to conditions associated with poverty;
3. Need for greater diversity in the economy.
4. Declining resource base and the impacts of climate change
5. Unreliable electricity supply through Eskom (frequent load shedding)
6. Urbanisation
7. Low foreign direct investment (FDI) and business expansion

2.6.1 Future Economic Growth and Development

One of the major highlights in the global economy during most of 2015 has been the unpredictable commodity prices which have influenced key decision-making processes – mostly due to the supply and demand for raw materials. One of the key factors is the slowdown of China's economic growth as well as anticipation of tightening monetary policy in the US. Global growth for 2015 is projected at 3.1% which is 0.2 percentage points below the forecasts in July 2015 by the World Economic Outlook Update. The recovery in advanced economies is expected to improve slightly, while activity in emerging market and developing economies is projected to slow for the 5th year in a row.

Another impact on the global and regional economies may be the effects of El Nino which causes flooding and warm weather, drought and torrential rains depending on where one lives. Presently the impacts are being felt severely in KwaZulu-Natal, which, together with the Free State Province has been declared disaster areas by national government - this will now provide relief to communities and the provincial economy. However, it was noted that the province still needs to use water sparingly because this a global phenomenon that is said to be going to prevail along with the climate change and global warming.

The International Monetary Fund (IMF) has again lowered its growth outlook for South Africa for 2015, projecting in its October World Economic Outlook (WEO) that the economy would expand by only 1.4% in this year and 1.3% in 2016. This is close to the downward revision by National Treasury of 1.5% in the Medium Term Budget Policy Statement. This does not bode well for the country's goal reaching the job

target set in the National Development Plan as the unemployment rate increased to 25.5% in the third quarter of 2015 from 25% in the previous period. The number of unemployed rose 3.6% while employment went up at a slower 1.1%. In the same quarter, the not economically active population declined 1.3% to 14.87 million and discouraged work-seekers decreased 8.5% to 2.2 million.

The 1.1% increase in employment were observed in trade (+2.6%), construction (+4.2%) and agriculture (+3.2%). In contrast, job losses were recorded in utilities (-6.7%) and transport (-2.6 %). In the third quarter of 2015, the labour force participation rate increased to 58.8% from 58.1% in the previous period. The expanded definition of unemployment, which includes people who have stopped looking for work slowed to 34.4% from 34.9%.

The dismal growth outlook also means that business confidence is likely to remain suppressed over the next 2 years due to weak domestic demand and pressure on costs. In addition to this there's also the uncertainty over private sector property rights which is undermining confidence and private sector fixed investment, leading to slow employment. Along with other commodity exporters, South Africa has faced slower economic growth and a weaker currency as the commodity slump (particularly metals and energy) follows on from a decade of price rises and investment into extraction. However, the fall in the oil price has had a positive impact on SA's current account deficit.

The eThekwini municipal region recently recorded the lowest unemployment rate of 16.5% in the *Quarterly Labor Force Survey* by Statistics South Africa during the second quarter of 2015. The region employs approximately 9% (approximately 1.3-million) of the national total of 14.4-million people and is currently growing at a rate of 2.2%. Although the unemployment rate is low for eThekwini, the challenge remains to grow employment by more than 4% in order to meet its share of the NDP target.

The Municipality's *Industrial Revitalisation Plan for 2015/16* and the update of the industry database will play a useful role in identifying where the manufacturing sectors are growing. This will also enhance the City's efforts in encouraging those sectors experiencing both growth and job creation. The Economic Development and Investment Promotion Unit has also launched some unique innovation initiatives and these include the Youth Innovative Challenge, a partnership with IBM, the Sustainable Enterprise Development Facility and the Government of Flanders with the purpose of supporting youth-driven technology businesses.

The announcement that Durban will host the *2022 Commonwealth Games* is expected to catapult the city onto the global platform for the next 7 years from which a multitude of economic and social benefits may be reaped. These benefits include exposure to world markets to attract and enhance tourism and foreign direct investment. The event – which is taking place for the first time on African soil - is expected to generate up to R20 billion to the national economy, translating into an additional R11 billion gross domestic product growth and is expected to add approximately R2-billion to the local economy. The Games will underpin the City's growing reputation as an events capital of the continent and may act as a major boost towards achieving the ambitious visitor targets set in the Municipality's Tourism Strategy leading up to 2022. In addition, there will be opportunities to showcase the city's on-going initiatives with respect to new tourism products, innovation, poverty alleviation and transformation some of which may be directly linked with the Games.

The Economic Development and Job-Creation Strategy 2013-2018 which was adopted by the eThekwini Municipality's Executive Council in 2013 provides a growth scenario over the next 20 years with an overall framework for the first 5. The purpose is to put in place a suite of fundamentals to drive the growth in the future phases. The growth opportunities over the next 20 years will focus on capitalizing on the role of the port, international airport and modern rail, road, infrastructure, information and communication technologies. It also includes promoting the city as a centre for trade between Africa and the world. From a tourism perspective it will entail marketing the city as an events and tourism destination. In addition, it seeks to promote the city as the best location for manufacturing activities.

The municipality is poised for steady economic growth from several major catalytic projects over the next 20 years creating in excess of a million construction jobs and over 600,000 permanent jobs. Major construction projects such as the Cornubia mixed-use commercial-residential development, the port expansion plans, Kings Estate, Inyaninga Industrial Estate, on-going economic opportunities at Dube TradePort and the development of the dedicated freight route are all expected to contribute towards this growth.

The Strategy also seeks alignment and ensures it is homologous with the relevant Strategies amongst the three spheres of government – most notably the New Growth Path, National Development Plan and the Industrial Policy Action Plan from National government, all of which have identified specific sections of the economy with job-creation potential. The KwaZulu-Natal Provincial Industrial Development Framework and the Growth and Development Strategy also guide the local government initiatives. In compiling the Integrated Development Plan, the Spatial Development Framework and others, the eThekwini Municipality has ensured that the essential principles and focus areas resonate with these reports.

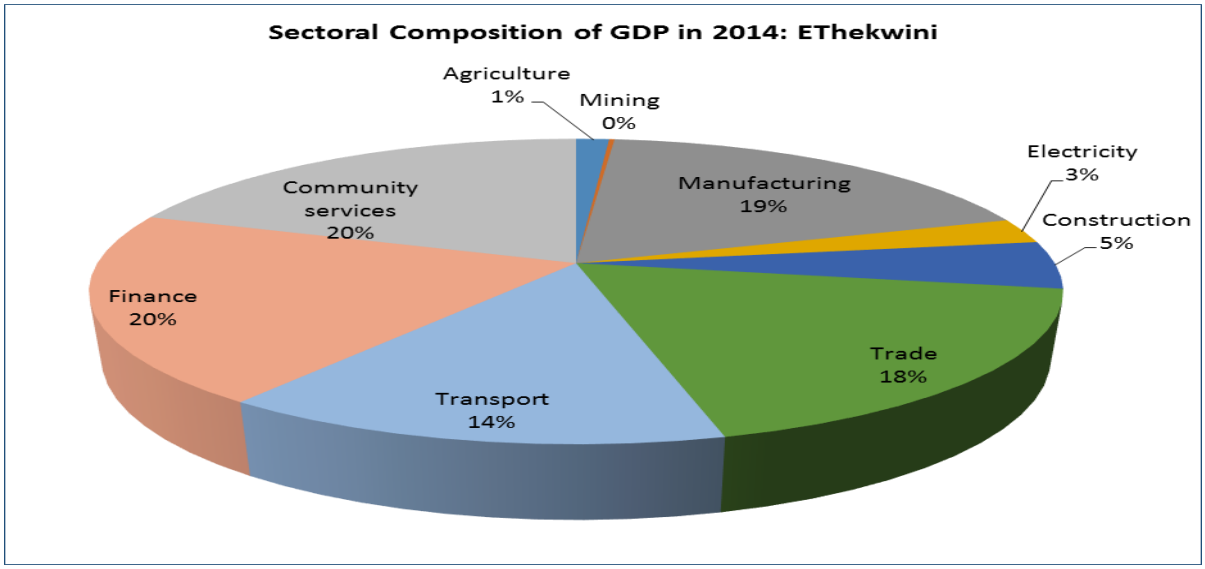
These objectives, however, may be delayed by various socio-economic and other threats such as the lack of appropriate job skills, poor political will, unspectacular economic and employment growth, inadequate foreign direct investment, high cost of doing business, poor infrastructure and a lack of serviced industrial land. In addition to the high-level goals set forth in the Strategy it is also the Municipality's objective to go 'back to basics' in terms of cleaning up the central business district (CBD), rejuvenate the South Durban Basin by offering an attractive industrial and logistics location for investors and also enhance our tourism products in the city centre and surrounds with new branding initiatives.

The Strategy examines trends in the detailed sub sectors in manufacturing noting the comparative and competitive attributes for each after which a choice of industries are selected. These priority sectors include automotive, chemicals, clothing and textiles, food and beverage, furniture, metals, electronics and electrical machinery and green industries. In the services sector tourism, ICT, creative industries (Film and Media; Crafts; Fashion), finance and professional services and transport and logistics were identified.

The Municipality also unveiled the R22 billion transport strategy during November 2013. This will offer Durban commuters a system that would use taxis, buses and trains at a cheaper rate than existing modes of transportation. The Municipality will cover R20 billion of the cost and the balance to be covered by the Passenger Rail Agency of SA. The municipality is the first in the country to roll out a plan that incorporates all modes of transport into a unified network. Phases one and two have started and are expected to be completed by 2016.

The release of the latest 2014 data from Global Insight provides the most recent information on the socio-economy indicators for the municipality. The eThekwini's GDP (in constant 2010 prices) was recorded as R272, 9-billion in 2014. It is forecasted to grow by 1, 9% during 2015. Presently eThekwini's GDP comprises 57, 1% of KwaZulu-Natal's GDP and 9, 1% nationally.

GDP growth in the eThekwini Municipal region increased by 1, 2% between 2013 and 2014 while KwaZulu-Natal and South Africa grew by 1, 7% and 1, 5% respectively.

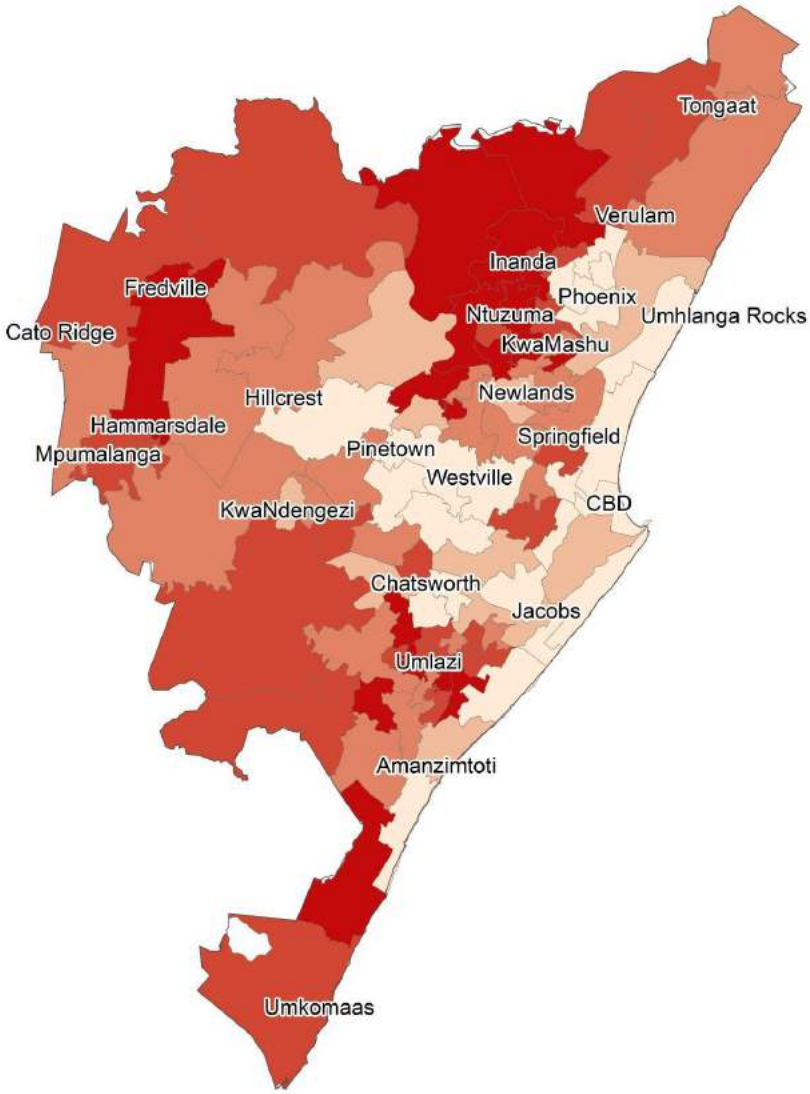


Source: Global Insight

Figure 29: Percentage Contribution to GDP in 2014 (Constant 2010 prices)

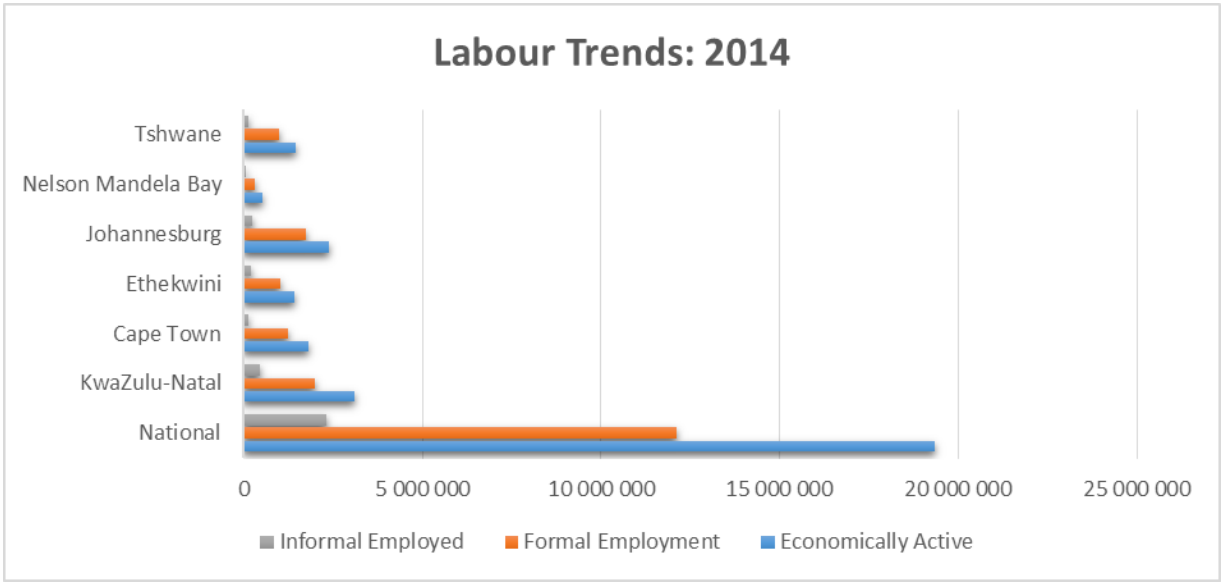
The above graph shows the percentage contribution to GDP by broad sectors during 2014. The eThekwini economy was dominated by tertiary industries that included (1) finance (20%), (2) manufacturing (19%), (3) community services (20%), trade (18%), transport (14%) and construction (5%). Apart from the tertiary sector fulfilling a major role within the context of eThekwini's economy, manufacturing (which is classified within the secondary sector) constituted 24, 4% of the total economic activity. It was particularly the production of food and beverages, as well as fuel, petroleum, chemical and rubber products that contributed towards the magnitude of manufacturing within eThekwini. The tertiary sector accounted for 80, 1% of employment in eThekwini in 2013, while the secondary sector made up 16, 6% and the primary sector comprised 3, 3%.

The eThekwini population comprises 33, 7% of KZN and 6, 6% of South Africa's total population. Global Insight records the population in 2014 as 3,544,678. The population growth rate from 1996 to 2014 averaged 0,9%.



The above map above shows a deprivation index per ward, where most deprived wards are in such areas like Cato Ridge, Umkomazi Inanda, Tongathi, and the less deprived are found in such areas as the City Centre, Pinetown, Westville, Umhlanga, and Phoenix and Verulam areas.

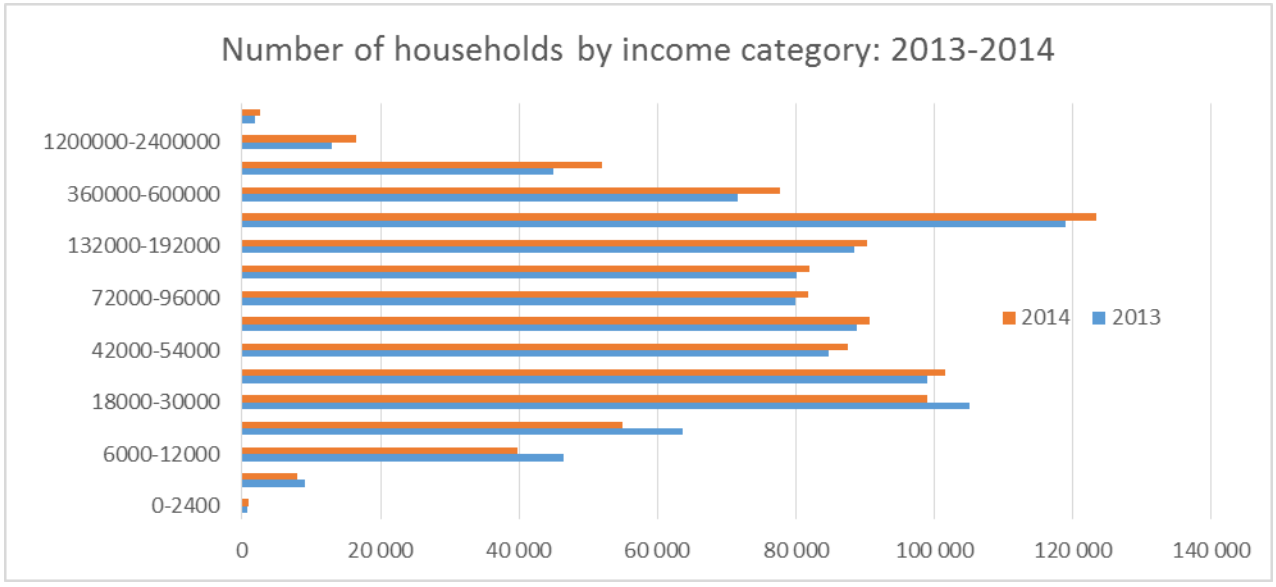
According to Census 2011, there were 956,713 households in eThekwini, 65.2% of which were African, 18.7% Asian, 13.5% White, and 2.6% Coloured. In 2011, 38% of the eThekwini population was economically active, decreasing by 2.0% from the economically active population in 2006. EThekwini showed significant improvement with respect to the municipality's unemployment rate, decreasing from 25, 1% in 2004 to 15.5% in 2013, and 15.7% in 2014. When compared to the other metro municipalities in 2013, eThekwini performed the best (Johannesburg 22, 8% and Cape Town 24, 9%) in terms of the unemployment rate.



Source: Global Insight
Figure 30: Labour Trends

The above graph shows the labour trends for national, KZN and the 5 major local economies for 2014. The big employment sectors in eThekwini was community services, finance, trade and manufacturing. Total employment in 2014 was 1,045,553 (1, 3 million including informal employment). Growth in the past 18 years was 2.3% for formal/informal and 2% over the last 10 years. EThekwini has experienced a decrease in unemployment since 2010 most due to an increase in the 'not economically active persons' which has occurred throughout KwaZulu-Natal.

Real disposable income grew by 3.8% between 2013 and 2014. The graph below shows the trends in the 16 income categories for number of households during these two years. There was a decrease in the number of households earning in 9 of the 16 income categories, mostly in the lower end. The huge drop in the first and second categories may be due to standard population growth.

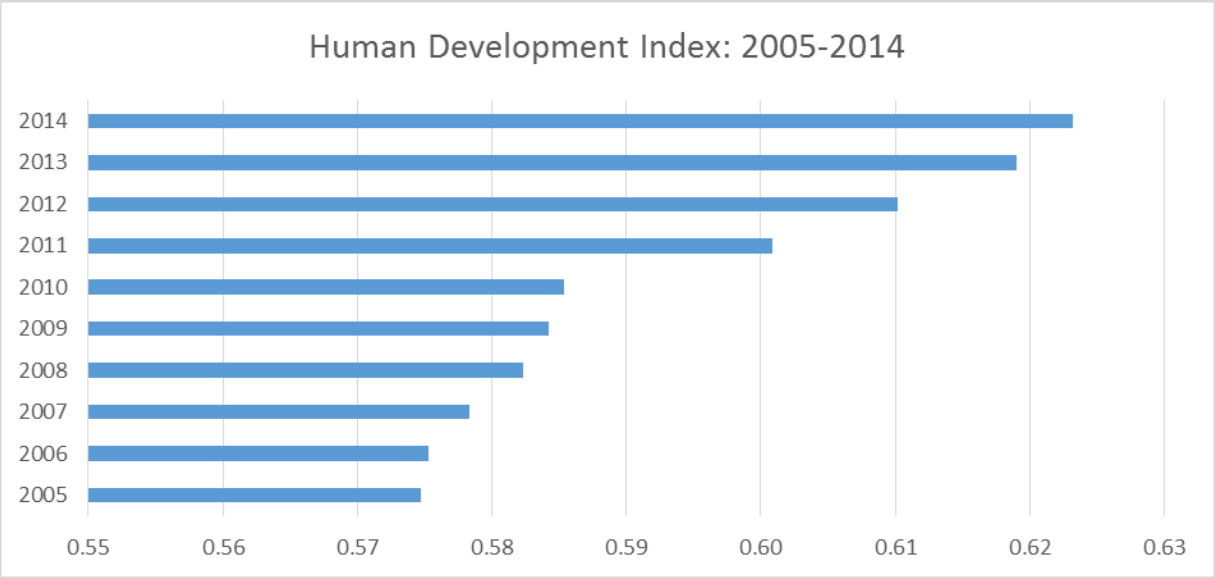


Source: EDIPU
Figure 31: Number of Households by Income Category

In 2014 the per capita income for eThekwini was R55, 727 per annum (increased by 8.6% from 2013). EThekwini has the 6th highest per capita income when compared with other major metros; the highest of which is Tshwane with R71, 710. The overall gini-coefficient in eThekwini was 0.64 in 2014 – a change of 0.01 percentage points from 2013.

Total household expenditure in eThekwini in 2014 amounted to R202,2 billion, up from R184,1 billion in 2013. The majority of household expenditure was on accommodation (14.2%), taxes (12.4%), finance (7.2%), transport (6.8%) and medical schemes (6.0%).

Total retail sales amounted to R57,5 billion in 2014, up from R53,3 billion in 2013. The most retail sales were in perishable and processed products (34.9%), ladies/girls and infants clothing (9.5%), inedible groceries (7.5%) and pharmaceuticals (6.7%). EThekwini accounts for 57% of KZNs total retail sales. In 2014, of the total buying power of the country (100), eThekwini's share (index of buying power) amounted to 9%.

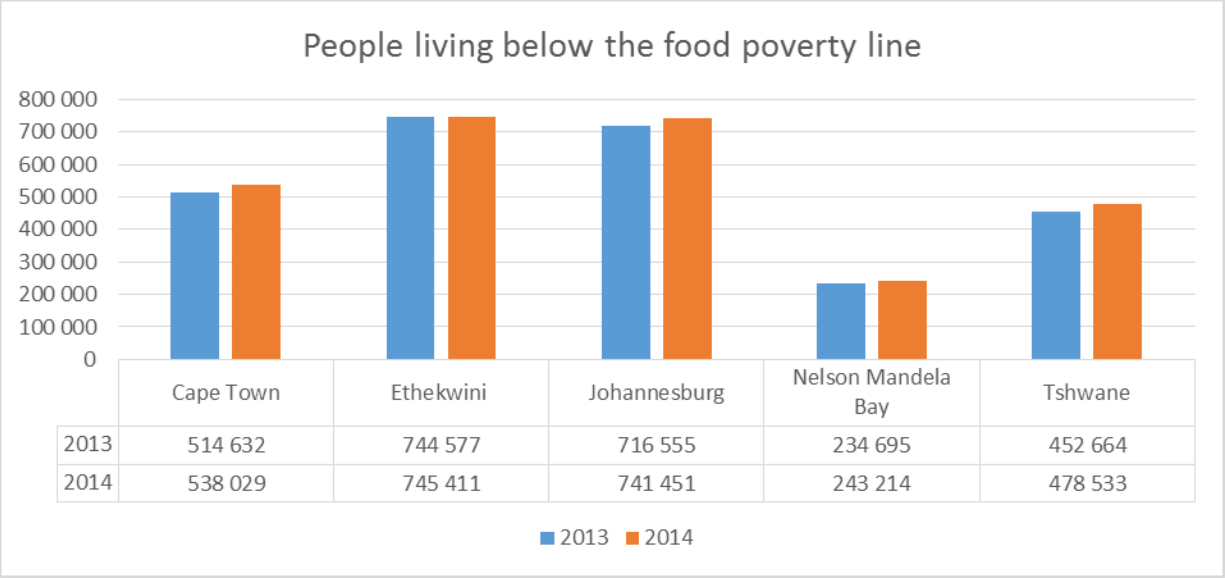


Source: Global Insight
Figure 32: Human Development Index 2005-2014

The above graph compares the change in the human development index (HDI) for the eThekwini between 2005 and 2014. The change was roughly similar for most of cities; however eThekwini still has the lowest HDI in 2014 (0.62) when compared with the other major cities (Cape Town 0.72, Johannesburg 0.71, Nelson Mandela Bay 0.65 and Tshwane 0.71).

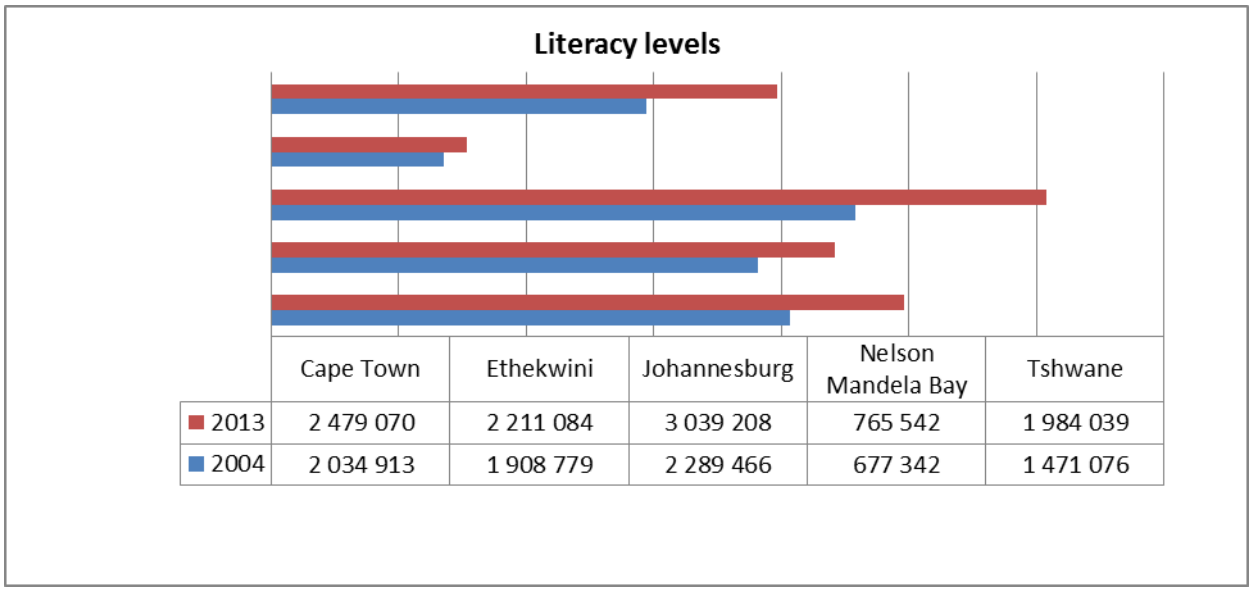
The percentage of people living below the food poverty line has reduced by 30.1% between 2004 and 2013 and by 0, 12% between 2012 and 2013; however, eThekwini has the highest number compared to the other 4 major cities in the country.[2]

2 Food Poverty Line defined as the inability to purchase sufficient food for one's diet



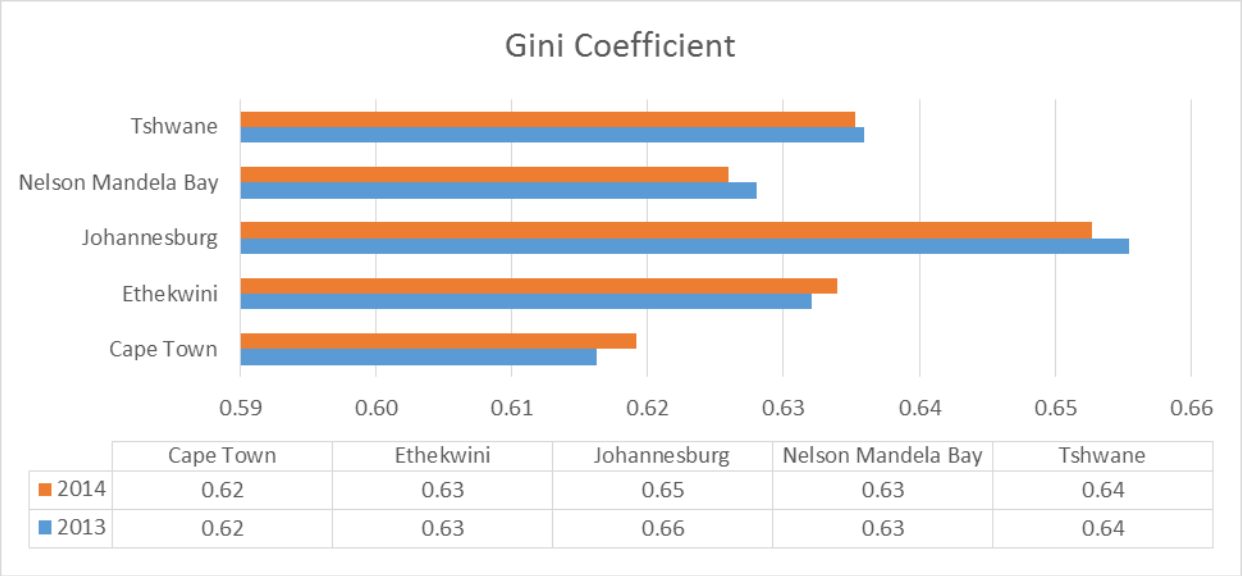
Source: Global Insight
Figure 33: People living below the food poverty line

Of eThekwini's approximately 744,577 people living below the poverty line in 2013, 98, 8% are African, while 0, 3% are Asian, 0, 8% are coloured and 0.1% white. This means that 28% of the African, 7, 5% of the coloured, 0, 43% of the Asian and 0.05% of the white population are living below the food poverty line.



Source: Global Insight
Figure 34: Literacy Levels

This graph compares the literacy levels - defined as the proportion of persons aged 20 and above that have completed Grade 7. Johannesburg leads with the highest number at approx. 3 million with Cape Town 2nd followed by eThekwini. EThekwini had the second highest percentage of matriculates (9.03%) behind Johannesburg at 11, 9% with Cape Town third at 8, 7



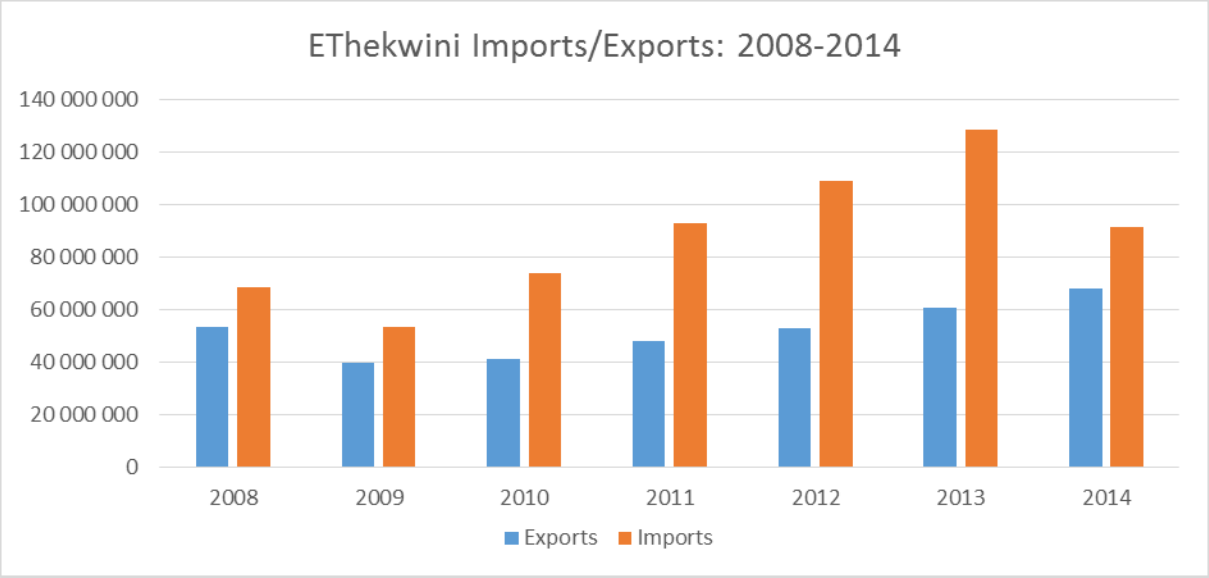
	Cape Town	Ethekwini	Johannesburg	Nelson Mandela Bay	Tshwane
2014	0.62	0.63	0.65	0.63	0.64
2013	0.62	0.63	0.66	0.63	0.64

Source: Global Insight
Figure 35: Gini Coefficient

The gini coefficient for eThekwini ranked 2nd place with Nelson Mandela Bay while Johannesburg was the highest (65) and Cape Town the lowest at 0.62 during 2014. The Gini coefficient is a summary statistic of income inequality, which varies from 0 (in the case of perfect equality where all households earn equal income) to 1 (in the case where one household earns all the income and other households earn nothing). In practice the coefficient is likely to vary from approximately 0, 25 to 0, 70.

The graph below shows that imports in eThekwini during 2014, was higher than exports at R91, 4 billion while exports was R68, 1 billion. EThekwini's contribution to South Africa's exports was 6.8% in 2014, while eThekwini's contribution to national imports was 8.5%. In eThekwini, imports have grown at a faster rate than exports during 2008-2014 (3.6% and 4.2% respectively). The massive drop in imports between 2013 and 2014 is probably due to the drop in crude oil products of approx. R38 billion.

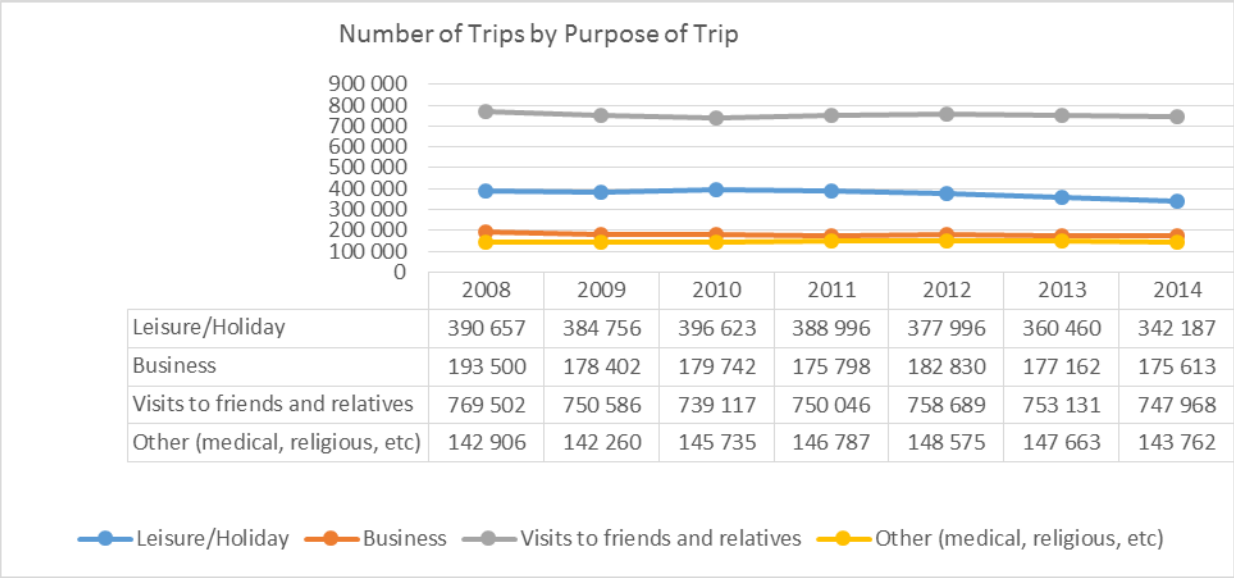
Over 60% of all exports during 2014 were motor vehicles, parts and accessories and basic iron and steel. Almost 50% of imports are motor vehicles, parts and accessories, and basic chemicals. The majority of exports are destined for African countries and the majority of imports are from Asia. The number one export partner is Japan, while the top import partners are Germany and China.



Source: Global Insight
Figure 36: Imports and Exports for eThekwini

Movement within the major trade blocs show that, the majority of exports are to the European Union (EU) (36%). The majority of imports (approx. 60%) are from the Asia-Pacific Economic Cooperation (APEC) countries. In terms of specific geographic areas, the majority of exports are destined for African countries (approx. 37%) and the majority of imports are from Asia (approx. 58%). The number one export partner remains the United Kingdom, while the top import partner was Japan in 2014. A large 51% of eThekwini's imports come from China and Japan. Other trading partners include Germany, the United States, China, and Spain. Chief exports include corn, diamonds, fruits, gold, metals and minerals, sugar, and wool.

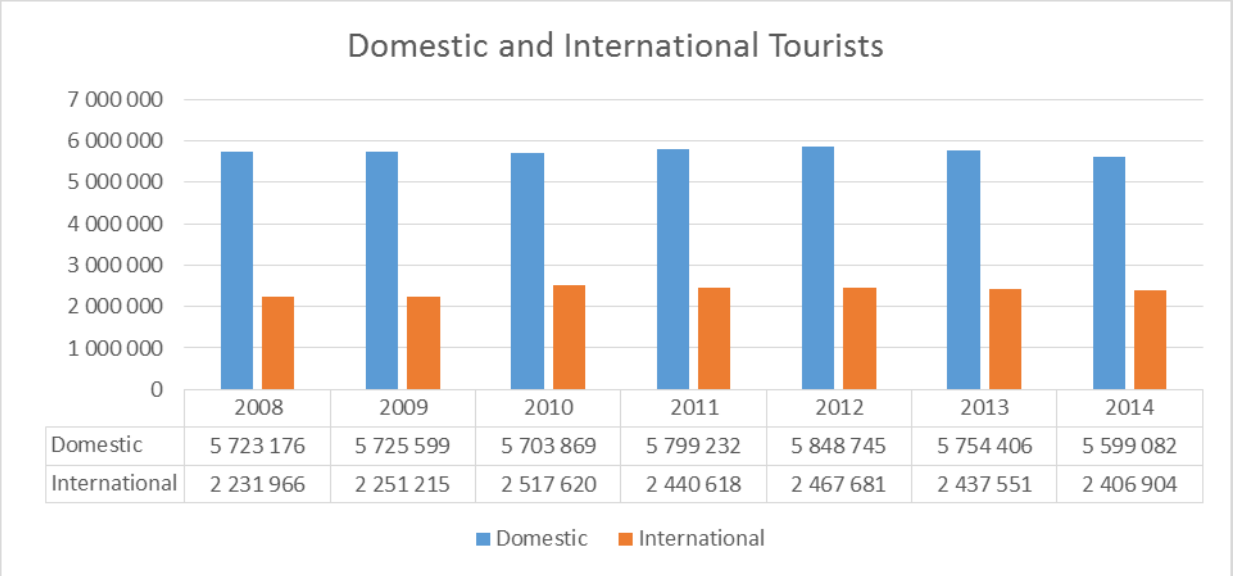
The next graph shows the number of trips by purpose of trip in EThekwini from 2007 to 2013. In 2013, tourism contributed 3.5% to eThekwini's GDP. This has declined by 1.7% since 2007. The graph also reveals no increasing trend in any of the number of trips by purpose over the past 7 years. There was an 87% to 13% split between domestic and international total bed nights in 2013. Over the past 10 years, the number of domestic visitors averaged 7,440,681 while international averaged approximately 2,998,820. Domestic visitors to eThekwini have been decreasing since 2009, while international visitors had a steady increase since 2009.



	2008	2009	2010	2011	2012	2013	2014
Leisure/Holiday	390 657	384 756	396 623	388 996	377 996	360 460	342 187
Business	193 500	178 402	179 742	175 798	182 830	177 162	175 613
Visits to friends and relatives	769 502	750 586	739 117	750 046	758 689	753 131	747 968
Other (medical, religious, etc)	142 906	142 260	145 735	146 787	148 575	147 663	143 762

Source: Global Insight
Figure 37: Number of Trips

The graph below shows the split between international and domestic bed nights which decreased by 2.7% for domestic, while international Bed nights decreased by 1.3% in 2014.



	2008	2009	2010	2011	2012	2013	2014
Domestic	5 723 176	5 725 599	5 703 869	5 799 232	5 848 745	5 754 406	5 599 082
International	2 231 966	2 251 215	2 517 620	2 440 618	2 467 681	2 437 551	2 406 904

Source: Global Insight
Figure 38: Domestic and International Tourists

PROJECTS UPDATE

Dube Trade Port

With the purposes of boosting investor appetite and confidence in KwaZulu-Natal, the MEC for Economic Development, Tourism and Environmental Affairs, Michael Mabuyakhulu, unveiled a multi-million rand International Trade Avenue -for what is basically an expanded roadway - at the Dube TradePort (DTP) during May 2015. The completion of this 3.25-km dual carriage highway (previously known as the Watson Highway Link Road) which runs parallel to Dube TradeZone marks a milestone in the precinct's future expansion plans.

The project took a total of 34 months to complete, with an investment amount of R239 million and a total jobs yield of 440 jobs during the construction phase.

Cornubia

The Cornubia development is situated 15 km south of the King Shaka International Airport, and is a joint venture between the eThekwini Municipality and Tongaat Hulett Developments. This development is strategically located between the wealthier suburbs of Mt. Edgecombe and Umhlanga, and the disadvantaged areas of Phoenix, Inanda, Ntuzuma and KwaMashu.

The project has now been adopted by Cabinet as a national priority project. The 1,200 hectare mixed-use development houses two million square metres of commercial space, coupled with 80 hectares which are earmarked for industrial uses. The development will also see the construction of 24, 000 new residential units, 15, 000 of which, will be for subsidised housing.

The development includes the Cornubia Industrial and Business Estate (CIBE), which is a light industry zone, and is situated within a precinct which is strategically located in terms of access to the labour market and key transport networks. The Cornubia Retail Park is adjacent to the N2 and M41 corridor, and will provide 100, 000 m^2 of retail bulk and 64, 000m^2 of office bulk. It is envisioned that this retail park will complement the existing node of Umhlanga. The eThekwini Municipality and Tongaat Hulett have also announced the development of the R280-million **interchange** to link the Cornubia development and the Umhlanga precinct. When completed the precinct will include 10,000 residential units, 15,000 subsidised units and 2, 5 million square metres of commercial and industrial property. The interlink is scheduled to be completed in January 2017.

Automotive Supply Park

EThekwini Municipality's recent approval of the South Illovo Local Area Plan, will include the development of 3, 792 residential homes, 1, 316, 207m^2 of industrial space and 51 810m^2 of commercial space, and will cater predominantly for the development an Automotive Supplier Park (ASP). It is expected that the ASP will accommodate at least 100 hectares of 'developable' industrial land. The advantage of the location of the ASP is that it allows for access to the N2 route and will improve access to distribution channels for manufacturers and is ideally placed to utilize the dig-out port when it comes on stream.

The wetland study is now complete and has been submitted to the eThekwini's Environmental Department for comment. There is also a reserve determination study underway to ascertain the amount of affluent the UMsimbazi River could absorb and for possible alternative solutions.

Isipingo

The Isipingo Local Area Plan (LAP), Functional Area Plan (FAB) and Land Use Management Scheme (LUMS) are currently underway. The project team has concluded the following phases - Inception, Statue Quo/Situational Analysis, Development Concept and Infrastructure Implication. It is expected to be concluded by the end of the 1st quarter of this financial year.

Clairwood Logistics Park

The Clairwood Logistics Park is located at the old Clairwood Race Course and is set to meet the growing demand for A-grade logistics space and distribution facilities in the South of Durban. It will create an estimated 18,000 jobs during the 4-year construction period and more than 4,000 jobs after completion in December 2020. The Capital Property Fund purchased the site and will invest approximately R3, 5-billion to develop it. This includes an R110-million roads and infrastructure update surrounding the facility.

Point Waterfront Project

The Point Waterfront is being developed per the Development Framework Plan by the eThekwini Municipality. The Durban Point Waterfront Development Company is the primary developer and is presently working to revitalise development according to this new Plan. The company has applied for an amendment to the Scheme Clauses and the Environmental Authorisation to allow for a number of changes, which will enhance the development opportunities and benefits for Durban.

The Small Craft Harbour is no longer proposed and this will allow the promenade to be extended and this will eventually accommodate water sports clubs facilities, the seine netters and parking for the public beneath the walkway. Vetch's Pier will not be impacted on by new development proposals as all construction will be located behind the building setback line to eliminate developments in the seashore zone and improve beach access to the public. The land use will includes proposals for a mix of residential, office, hotels, and retail and entertainment facilities.

EThekwini Film City

This is one of the largest private investments in the city to be located on the Natal Command site on the Durban beachfront. This R7-billion project will comprise a number of components that work together to ensure economic viability. The development will be anchored by eThekwini Film Studios which will consist of sound stages and production workshops, the Walk of Fame, a television studio, editing suites, a back lot set area Midway Centre and a museum of South African cinema. This development will become the hub for the film industry and is expected to create 17,000 jobs during the construction phase and more than 8,000 jobs during operations.

Keystone Park

Keystone Park is a 152-hectare logistics and light industrial precinct on the N3 near the Hammarsdale interchange. This R6-billion economic catalyst project for the Hammarsdale/Mpumulanga region received regulatory approval to commence development during 2014 and is now being constructed as a fully serviced precinct to accommodate logistics facilities. The construction phase is expected to create 3,500 jobs and over 6,000 direct jobs during operations.

Western Aqueduct

The second phase of the western Aqueduct is on target to be completed by mid-2017. The first phase (20km from Umlaaas Road Reservoir to Intshanga) was commissioned at the end of 2012. The Western Aqueduct is intended to replace existing infrastructure that brings water into Durban from Midmar and Spring Grove Dams.

Human Settlements

The EThekwini Municipality has delivered 171,000 homes since 1994. These homes have been taken up by more than half a million poor and unemployed people. The city is committed to providing requisite infrastructure to ensure that these people are able to commute to places in search of new economic opportunities and in so doing, has implemented an Alternative Building Technology pilot project to fast-tract housing delivery to eliminate informal settlements. Since 1994 the city has built an average of over 8,100 homes per annum.

The eThekwini municipal region recently recorded the lowest unemployment rate of 16.5% in the *Quarterly Labour Force Survey* by Statistics South Africa during the second quarter of 2015. The region employs roughly 9% (approximately 1.3-million) of the national total of 14.4million people and is currently growing at a rate of 2.2%. Although the unemployment rate is low for eThekwini, the challenge remains to grow employment by more than 4% in order to meet its share of the NDP target.

On 30 November 2015 the Economic Development and Planning Committee (ECOD) approved the establishment of a Catalytic Projects Office, reporting to the City Manager. The aim of this office is to fast track the implementation of key projects within the eThekwini region, which is anticipated to kick start the sluggish local economy. The Economic Development and Investment Promotion Unit also initiated new initiatives including the Youth Innovation Challenge, a partnership with major tech companies, the International Labour Organisation, Sustainable Enterprise Development Facility and the Government of Flanders with the purpose of supporting youth-driven technology businesses.

The announcement that Durban will host the 2022 Commonwealth Games is expected to catapult the city onto the global platform for the next 7 years from which a multitude of economic and social benefits may be reaped. These benefits include exposure to world markets to attract and enhance tourism and foreign direct investment. The event, which is taking place for the first time on African soil, is expected to generate up to R20 billion to the national economy, translating into an additional R11 billion gross domestic product growth and is expected to add approximately R2billion to the local economy. The Games will underpin the City's growing reputation as an events capital of the continent and may act as a major boost towards achieving the ambitious visitor targets set in the Municipality's Tourism Strategy leading up to 2022. In addition, there will be opportunities to showcase the city's on-going initiatives with respect to new tourism products, innovation, poverty alleviation and transformation some of which may be directly linked with the Games.

2.6.2 The Spatial Economy

The spatial distribution of economic activity in the EMA is heavily skewed towards the Durban City Centre, the Durban South Basin, the Port of Durban and the Pinetown and New Germany areas. The EMA has uneven distribution of economic opportunities with most employment and consumption opportunities concentrated in the central core areas

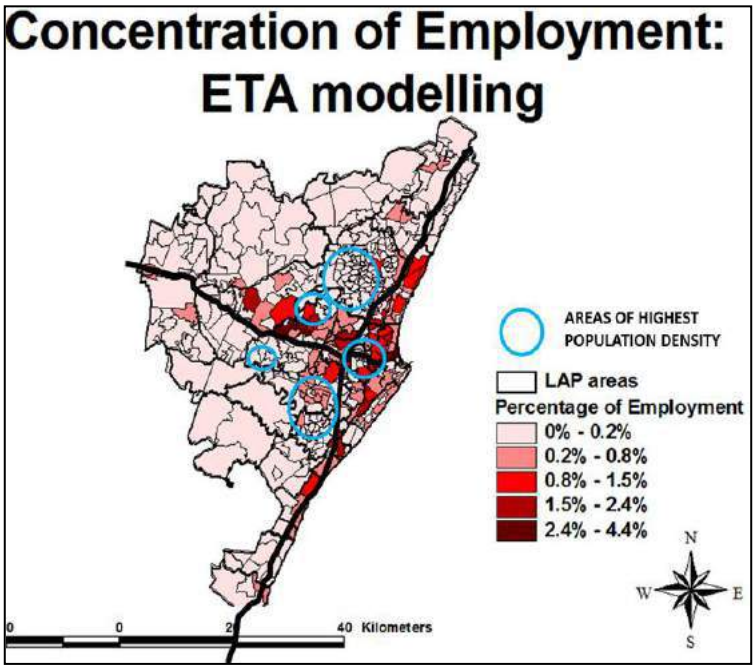


Figure 44: Concentration of Employment

There is also a separation of residential uses from economic ones. Higher densities are found in townships and informal settlements on the periphery but these are not supported by the provision of amenities. These poor resource areas have high unemployment rates, low household incomes, poor levels of education and low levels of access to areas of economic opportunity. This implies that there are few employment opportunities where people live, and that economically active residents must commute between work and home.

The spatial economy of EMA is analyzed below under the following categories:

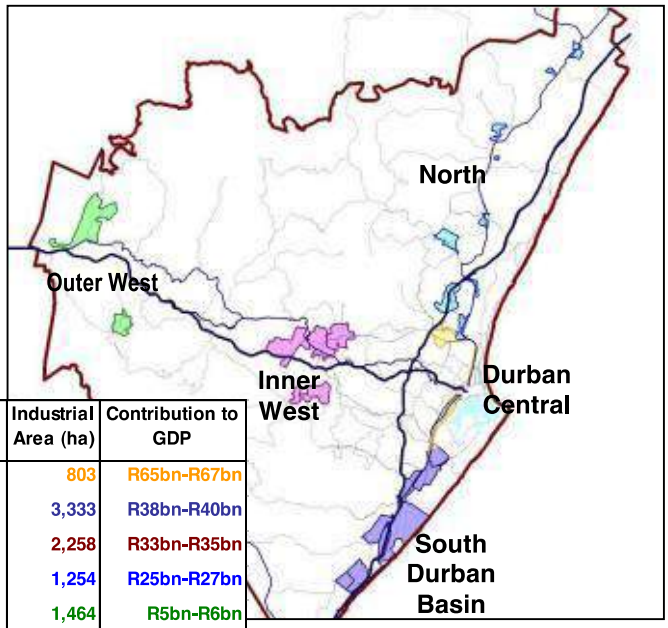
- Industrial development
- Freight and Transportation Logistics
- Commercial / Retails and business development
- Informal economy
- Agricultural development
- Tourism and recreation

2.6.3 Industrial Development

The EMA has five main industrial areas as shown in the figure below. These are Durban Central, South Durban Basin, Inner West, Outer West and North. Manufacturing is the most dominant sector of industrial activities and as can be expected it occupies the most amount of land in the Municipality. Patterns of

clustering have occurred usually in mature industrial areas. The following significant clusters appear in the Municipality:

- Logistics and Transport – highly concentrated around the Port and in Pinetown
- Chemical sector – Pinetown and South Durban Basin
- Furniture and Bedding – Pinetown, Hammarsdale and Umbilo Road
- Textiles, Clothing, Footwear and Leather – Hammarsdale, UMngeni Road and Pinetown
- Other Industrial areas within the EMA include uMbongitwini, Phoenix, River Horse Valley, Tongaat, Canelands and Ottawa.



Regions	Industrial Area (ha)	Contribution to GDP
Durban Central	803	R65bn-R67bn
SDB	3,333	R38bn-R40bn
Inner West	2,258	R33bn-R35bn
North	1,254	R25bn-R27bn
Outer West	1,464	R5bn-R6bn
Ethekwini	9,112	R166bn-R175bn

Source: eThekwini Industrial Strategy

Figure 45: Industrial Areas

2.6.4 Freight and Transportation Logistics

The freight and transport logistics is the type of infrastructure that is needed to support, maintain and grow economic activity. This service infrastructure includes rail linkages, port efficiency, back of port operations (to enhance capacity and range of business), intermodal transport hub in ports and inland and the newly planned dug out port are projects which will give life to KZN, positioning the province as a gateway to Africa.

At the center of the transport industry is the Port of Durban. The Port of Durban is the busiest on the African continent as it handles the largest number of vessels per annum in comparison to all other African ports. The port offers a combination of port facilities and services. Transnet Ports Authority, formerly known as the National Ports Authority (NPA), is the custodian of all the national ports, managing the most vital conduits of the country's imports and exports.

2.6.5 The 18 Strategic Integrated Projects (SIPs)

Having recently celebrated 20 years into our democracy, South Africa still faces major challenges of poverty, unemployment and inequality at all spheres of Government. The National Development Plan (2012) was developed in response to the abovementioned challenges and aims to eliminate poverty and reduce

inequality by 2030. It identified infrastructure as a critical element to facilitate economic growth and job creation. In line with this and to support and stimulate service delivery, job creation and economic transformation the National Infrastructure Plan (NIP) was adopted in 2012 and the Presidential Infrastructure and Coordinating Commission (PICC) was established to integrate and oversee its implementation. The PICC announced 18 Strategic Integrated Projects (SIPs) which represent corridors of proposed infrastructural development, as support to achieving the goals of the NIP.

The SIPs cover social and economic infrastructure across all nine provinces.

Table 7: The 18 Strategic Integrated Projects (SIP)

STRATEGIC INTEGRATED PROJECT (SIP)	
SIP 1	Unlocking the Northern Mineral Belt with Waterberg as the Catalyst
SIP 2	Durban- Free State– Gauteng Logistics and Industrial Corridor
SIP 3	South Eastern Node & Corridor Development
SIP 4	Unlocking the economic opportunities in North West Province
SIP 5	Saldanha-Northern Cape Development Corridor
SIP 6	Integrated Municipal Infrastructure Project
SIP 7	Integrated Urban Space and Public Transport Programme Plan
SIP 8	Green Energy in support of the South African economy
SIP 9	Electricity Generation to support socio-economic development
SIP 10	Electricity Transmission and Distribution for all
SIP 11	Agri-Logistics and Rural Infrastructure
SIP 12	Revitalisation of public hospitals and other health facilities
SIP 13	National school build programme
SIP 14	Higher Education Infrastructure
SIP 15	Expanding access to communication technology
SIP 16	SKA & MeerKat
SIP 17	Regional Integration for African cooperation and development
SIP 18	Water and Sanitation Infrastructure Master

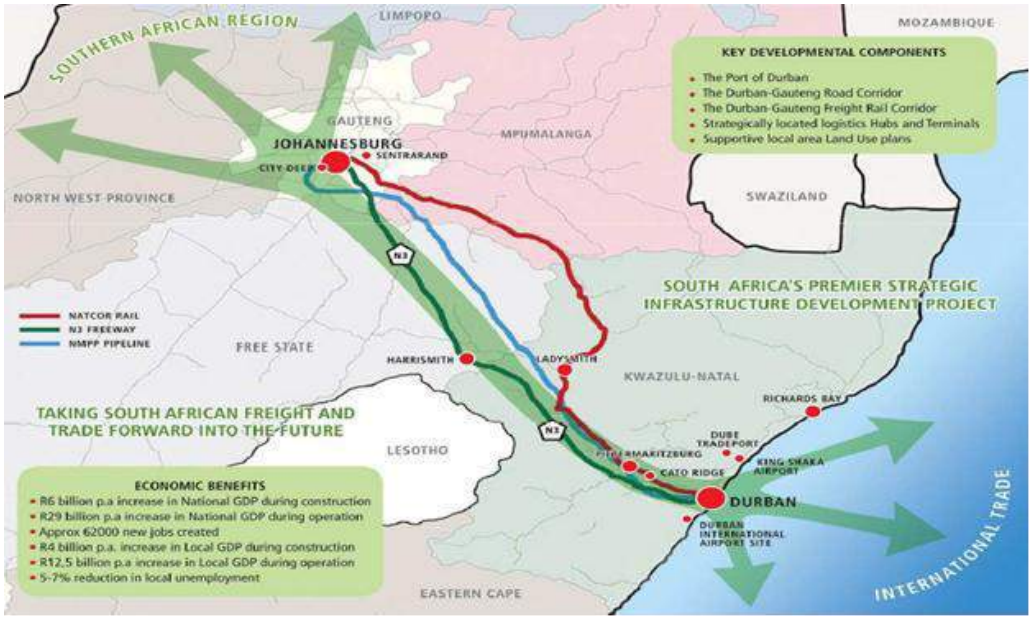


Figure 39: Durban- Free State– Gauteng Logistics and Industrial Corridor

The nationally driven Strategic Integrated Projects have a significant impact on the eThekwini Municipality, in particular, the SIP2 Logistics and Industrial Corridor as it forms the backbone of South Africa's freight network.

The main components of the freight corridor are the Port of Durban, well established road, rail and pipeline links to Gauteng, and inland freight terminals to service the broader Gauteng area and countries to the north of our border. The Bay of Natal is a regionally significant estuary and home to Africa's busiest port, handling a wide range of high value cargoes. It plays a critical role in servicing the import and export needs not only of Durban and its extensive KZN hinterland, but also of Gauteng and the Southern African region. Two thirds of South Africa's containers move through Durban, as well as a majority of liquid fuel and automotive cargoes. In addition, Durban handles significant break bulk, dry bulk and chemical cargoes, and provides facilities for cruise liners, the SA Navy, and for fishing, service vessels and recreational craft.

Durban is the premier gateway port in the South African ports system, with the lowest logistics costs. Durban handles high-value cargoes in a complementary relationship with the Port of Richards Bay, which focuses on bulk exports of minerals. Together the ports service the maritime needs of South Africa's eastern seaboard. As the South African economy grows, the capacity of the port needs to be increased. Over the past ten years, the growth in container traffic through Durban has been three times the national GDP growth rate. There is already pressure on the port, the roads, and in back of port areas, despite recent expansion projects. At an 8% annual container growth forecast the existing transportation infrastructure will reach its limits in 2019. Unless significant expansion takes place, South African economic growth will be constrained, and freight will be forced to relocate to more distant ports, increasing already high transport logistics costs, and compromise South Africa's global competitiveness. The development of the freight corridor and related projects will reduce the cost of doing business and improve productivity, which will create employment and generate wealth locally, regionally and nationally.

The vision covers port, rail, road and land-use plans, and focuses on national and local economic growth, social upliftment for affected communities, and environmental sustainability.

Investment in infrastructure capacity will exceed a quarter of a trillion Rand, making this one of the most significant projects in the history of South African freight transportation. The contributions to the local, region and national economies are expected to be significant during construction and operations. The anticipated number of jobs are 62 000 construction jobs and 54 000 permanent jobs locally, and another 22 000 permanent jobs in port related industries elsewhere in KZN. The project will stimulate local and regional economic growth. A growth of R4 billion per year in KZN GDP is projected during the construction phase. During the operational phase the growth is significantly larger and estimated GDP at local level is R12.5 billion per year. Cognisance has been taken of other freight expansion projects to accommodate growth in break bulk, dry and liquid bulk, and automotive volumes, and on other non-freight projects. Provision has been made for port and non-port related growth on the transportation corridors, as well as for expansion of passenger numbers on road and rail.

The Port of Durban currently experiences congestion, especially around port operations. In order to alleviate the situation, Transnet proposes to improve throughput capacity by reconfiguring and rationalising the existing precincts of Durban Container Terminal (DCT), Point, Maydon Wharf and Islandview. Transnet also proposes to utilise the Bayhead rail precinct for Back of Port commercial logistics development, in the medium to long term. Transnet plans to supplement the medium to long term capacity by developing the old Durban International Airport site to the proposed Durban Dig Out Port.

2.6.6 Commercial / Retails and Business Development

The constraint on land in the Central Spatial Region has led to a significant thrust of development outward toward the adjacent regions particularly toward the North and Western regions within the EMA. The decentralization of commercial development (including office and retail activities), particularly higher order activities, from the Durban and Pinetown CBD's to more affluent suburbs such as Umhlanga in the Northern Region has resulted in spatial restructuring (including the changing commercial role of these CBD's with the relative establishment of new nodes).

As a consequence of commercial and retail decentralization, these CBD's have experienced high vacancy rates as well as declining property values. (EThekwini Property Market Review 2006/2007, Viruly Consulting (Pty) Ltd) The loss of critical mass of economic activities within the core Durban and Pinetown CBD's in the form of decentralization to shopping malls as suburban models of development is being perpetuated. There is also a tendency towards expanding suburban office nodes and new office park developments which are attracting offices out of these CBDs.

2.6.7 Informal Economy

The management of the informal economy, especially street trading and retail markets , is a demanding task involving demarcation of trading areas, the issuing of permits, organising traders into area committees that feed into a citywide forum, and the ongoing collection of rentals. Coupled with this is the necessary enforcement of regulations and by-laws in conjunction with the Metro Police, as well as negotiations and dispute resolution where the interests of residents, traders and the formal economy come into conflict.

In order to provide a first step up for budding entrepreneurs and traders, a number of local incubator factories and storage facilities have been set up where workshop space or storage is available at a minimal rental. For entrepreneurs showing promise, there is a selection process whereby enterprises can advance to the entrepreneurial support centre, and where additional facilities are available, including training and support.

2.6.8 Tourism and Recreation

Tourism remains one of the most significant components of the metropolitan economy. Recreation opportunity is considered to be the main tourist resource within EMA and is based largely on the natural qualities of the coast. The coastline and beaches are significant tourist anchors for accommodation, commercial and entertainment development. Durban's central beachfront is arguably the most important tourism and recreation resource in the EMA.

According to SA Tourism, research conducted in 2005, the value of foreign tourist to KZN was R6, 9 billion with the eThekwini Municipality attracting 1, 1 million foreign tourists (equivalent to 78% of foreign tourist to KwaZulu-Natal or 16% of foreign tourists to South Africa). The Durban Beachfront was found to be the most popular attraction among foreign tourists, and was visited by approximately 875 000 foreign tourists (64% of tourism to KZN). Accordingly, the KwaZulu-Natal Tourism Authority analysis of the value of KZN's regional tourism markets concluded that Durban captures around 33% of foreign consumer spending in the province.

2.6.9 Summary of Economic Trends and Issues

ISSUES	UNDERLYING CAUSE	SPATIAL IMPACT
Jobless growth in the formal economy	Decline in labor intensive industrial sector, associated with shedding of jobs	Decline and blight associated with closure of business in industrial areas Land demand for expansion, and associated infrastructure requirements
Infrastructure limitations to economic expansion	Capacity limitations for port to expand Aging and obsolete industrial infrastructure Growth in road-based traffic, notably for container transport Poor transport linkage between certain economic zones and installations Infrastructure is inadequate to cater for growth	Pressure upon interface between port and city Relocation of business from aging industrial areas to newly established areas Congested transportation routes, mixing of industrial and residential traffic Certain forms of development are precluded from economic zones where water, waste disposal, waste water treatment and energy supplies are inadequate to meet requirements of the Municipality Development is focused along North. South and west growth path with limited development in adjacent hinterland
Changing locational patterns	Outward expansion of industry	Relocation of service industry and light manufacturing to decentralized

	Growth in suburban retail markets Emergence of specialist, bulk retailing activities Growth in suburban high grade office space	business parks along north, south and west growth path Relocation of higher income retailing functions to suburban locations Emergence of specialist/value retail parks outside CBD's Decentralization of office (especially A-Grade) to suburban office parks
Changing nature of economic markets	Emergence of informal/small scale economy Transformation of mass tourism and leisure markets Emergence of niche tourism and hospitality industry	Growth of economic activity around commuter hubs, public nodes and activity corridors Growth of street trading Growth of economic activity around commuter hubs, public nodes and activity corridors Growth in mass tourism and leisure focusing on seasonal utilization of the beachfront by day trippers Deepening of the niche tourism and leisure industry via growth of elite/coastal tourism, business and convention

In the coming years the City has a number of priorities that it will pursue, most of which align with national government's focus on infrastructure development and job creation. These include:

1. The development of the Northern Urban Development Corridor. This includes the development of Cornubia and support for development around Dube Trade Port/ Aerotropolis (Annexure 12).

2. In the Outer-West, development is to support the national Durban-Gauteng Corridor. This corridor is more than just a logistics route and there are significant development opportunities that these routes will make possible, including developments in Pinetown, Shongweni and Cato Ridge. The City will work with the Province and other Municipalities in proactively planning and opening up opportunities in this corridor.

3. In the Central area of the city (from the Durban Inner City to Pinetown), there will be further investments to support the inner city and entrench its role as a services center incorporating offices, sport and tourism uses, the civic heart and a residential community. It is also an area that supports the micro enterprises and all of these aspects will be strengthened. The planning in the back of port area will also be finalized. Pinetown is a key manufacturing node as well as an important CBD that needs to be revitalized.

4. In the Southern part of the city, the new dig-out port will be prioritized as well as the development of a logistics park in Illovo to support the automotive sector. The development of a dedicated freight route is also being investigated.

5. The City has a rural development programme and energy programme that focuses on key rural nodes, energy projects as well as agricultural projects to stimulate the economies of the rural areas.

6. The City accessed about R700 million from National Treasury in terms of the Neighbourhood Development Partnership Grant (NDPG) to facilitate investments in the township areas. The programme has been progressing well and investments have been made at Bridge City, the Mpumalanga New Town Centre, Umlazi, Clermont-KwaDabeka and KwaMashu. The City will continue to support these initiatives.

7. There are programmes aimed at revitalizing the secondary CBDs, as well as projects aimed at developing tourism nodes and corridors. These include uMhlanga; iNanda Heritage Route, Hazelmere Dam, uMgababa, Kingsway Tourism Corridor as well as many others.

8. The planning and implementation of public transport programmes in conjunction with Province and National Government will receive significant attention.

9. The investment climate will improve with improved procedures announced by National Government and the City should support this by ensuring simplified and expedient local processes to support investment. The Municipality is reviewing the first Best Practice City Commission (BPCC) and in addition – assess the current institutional mechanisms promoting and facilitating investment, with particular emphasis on the roles of the eThekwini Municipality. A BPCC Project manager has been appointed. The study is expected to inform the City leadership and officials about the current and new obstacles to investment in the municipal area, and provide a suite of recommendations and an implementation plan as a response. The City has experienced an increased level of interest in investments, however, a key challenge for many of the developments are around sanitation infrastructure and transport.

10. The Premier recently announced the establishment of the Provincial Human Resource Development Council aimed at guiding skills development. The City plans to become involved in this to ensure the interests of our young people seeking employment are supported through various programmes anticipated from this initiative.

However, there are numerous local challenges which if addressed and implemented may ensure a steady growth path towards the magic 5-7% with many additional benefits such as increased employment, investment and a more inclusive economy where all citizens of eThekwini enjoy equal access to the opportunities to come. The City intends to undertake initiatives in the various priority sectors that directly create jobs or support those that do. The Industrial Strategy currently under review in the City will spell out which sectors we should be focusing on and where to locate same.

The City will also attempt to play a meaningful role in the major projects recently announced by national government for example the Dig-Out Port, Corridor development and expansions in the existing port need to be fast-tracked to ensure that we are able to reach GDP growth that exceeds 3%.

2.7 EThekwini Housing Sector (eHSP)

The eHSP aims to:

- Set residential infrastructure as a city-building tool.
- Describe strategies and programmes for residential infrastructure.
- Prioritises programmes and investment locations.
- Informs and aligns with corporate spatial targeting.
- Be well aligned to the corporate planning tools of the IDP, SDF, and the BEPP.

The scope of the eHSP is currently limited to the housing topstructure and related engineering infrastructure for fully and partly subsidised residential infrastructure projects. It is recognised that there is a need for a more comprehensive human settlements plan that:

- Encompasses economic infrastructure and other social infrastructure.
- Encompasses the entire housing market, including private sub-markets.
- Is developed and implemented by the Municipality as a collective.

2.7.1 Strategy Emphases

The eHSP emphasises:

- Universal access to basic services within the medium term, and freedom from fear of eviction for the poor.
- Densification in Urban and Suburban Zones.
- Increased focus on Transit Oriented Development.
- Need an increased focus on Rental.
- Increased focus on mainstreaming subsidised housing into the Property Market.
- Mix of medium term big bangs and long-term steady programmes.

2.7.2 Programme Emphasis and Timeframe

Flowing from the Strategy Emphases, five Key Housing Programmes are emphasised, namely:

- Housing Mega-Projects
- Incremental Services
- Retrofit of Engineering Services
- Institutional, Social, Affordable and Gap Housing
- In Situ Upgrades and Greenfields

The eHSP uses a time-frame of the next four MTEFs, from 2016-17 to 2028-29. A multiple MTEF period has been specifically selected because the Housing Programme and Project Cycle, in Ethekwini's experience, is typically long-term. The purpose of setting a long-term timeframe is to create increased certainty around capital budgeting for and procurements by the Municipality, and also for other spheres that have a human settlement function (most notably education and health).

2.7.3 Existing Housing Typologies, Backlogs, and Construction Pace

In 2011, eThekwini had approximately 3.75 million persons living in some 950,000 dwellings [3]. This is expected to increase to four million citizens by 2020, and by 2035, to 4.4 million citizens. The majority (86%) of eThekwini's citizens are urban and suburban - i.e. 3.240 million. Non-urban citizens numbered 0.511 million. While there are no projections on how the distribution might change, but it seems likely that the urban periphery will continue to be a major destination for newly urbanising citizens, unless active steps are taken to promote a different pattern of urban growth.

Table 8: Housing Backlog Scenarios

Type	Sub Type	Total No. Households	Backlogs	
			Topstructure	Infrastructure
Sub Total	Houses	414,357	0	0
	Flats	110,225	0	0
		524,582	**0**	**0**
Urban & Suburban Informal	Single Dwelling ('Shack')	265,542	265,542	265,542
	Backyard	48,975	48,975	48,975
	Unserviced Formal	3,096	0	3,096
	Sub Total	**317,613**	**314,517**	**317,613**
Non-Urban	Cluster ("Umuzi")	70,317	70,317	70,317
	Single Dwelling	26,949	26,949	26,949
	Unserviced Formal	6,449	0	6,449
	Sub Total	**103,715**	97,266	103,715
Total		**945,910**	**411,783**	**421,328**
Construction Years Required			**45 to 63**	**84 o 140**

The backlog of top structures is about 412,000, and the backlog for engineering infrastructure is about 420,000 connections. Most of the backlog is experienced by low-income households who earn less than R 3,500 p.m. An exception is where freestanding houses have been built for the middle-income markets on traditional land, and this is a growing trend. Compared to other Metro's, eThekwini has a very high ratio of housing and infrastructure backlogs relative to the total population.

Since 1994, a little over 183,000 dwellings have been built and serviced. The pace trend for top-structure construction is 5,000 to 7,000 dwellings per annum, and the pace trend for road access and services connections to full standard is 3,000 to 5,000 per annum.

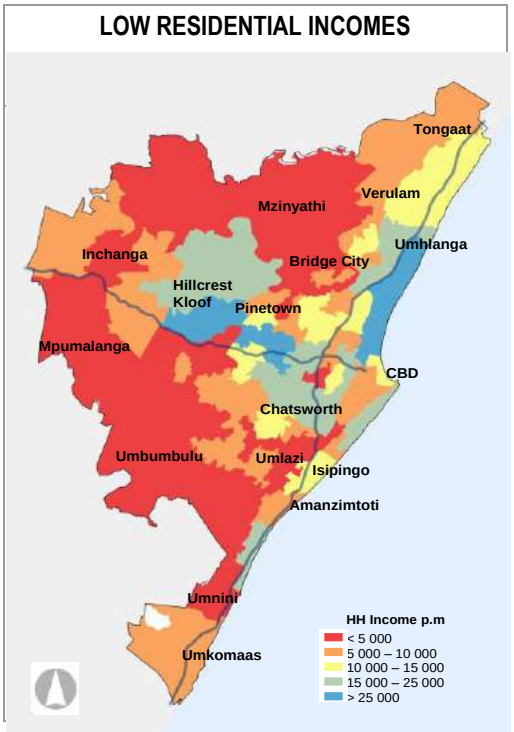


Figure 47: Low Residential Incomes

[3] The eThekwini Dwelling Count 2011 counted every dwelling within municipal extents, and then estimated total population by applying assumptions on household size according to housing typology and housing location. Data sources used included Metro billing data, aerial photography, and sample ground verification.

At the current construction pace, it will require about half a century to deal with tops-structure backlogs, and about century to deal with infrastructure backlogs.

As these timeframes are unacceptably long, the Municipality about a decade ago introduced the Incremental Services programme to provide universal services to all, and will now supplement that with the Key Programmes that have been emphasised for the next four MTEFs.

2.7.4 Densities & Locations

The average residential densities are too low to sustain public transportation and other infrastructure, or to promote the municipal economy. The gross municipal residential density is 4.2 dwellings per Ha, and 55% of the municipal surface has an average residential density of 3 dwellings or less. Where residential densities are significantly higher – Inanda-Ntuzuma-KwaMashu (INK) and, Umlazi and Chatsworth, Cato Manor and Berea, Durban CBD Pinetown, Clermont and KwaDabeka – public transport is more viable. Public transport requires gross densities of 60-90 dwellings per Ha to be self-sustaining without subsidisation. [4] There is a nucleus and spines of reasonably well-developed medium and higher density uses along the 'T' formed by major routes. eThekwini has a massive challenge to overcome since there are only a small minority of areas that come anywhere close to these densities. Densities tend to change slowly over time and therefore urgent and consistent attention needs to be given to enhancing densities in all areas and in particular within walking distance of the IRPTN.

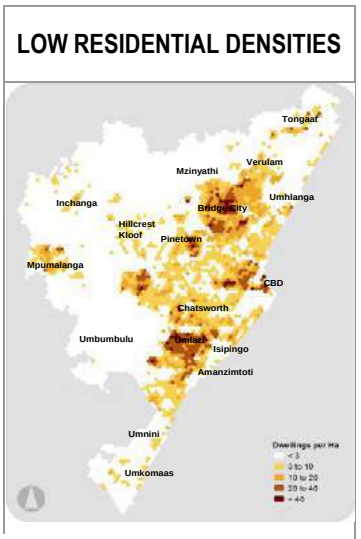


Figure 48: Low Residential Densities

2.7.5 Spatial Strategy

The item of spatial alignment and integration of SDF cascading into the BEPP and Sector Plans enjoys ongoing corporate attention.

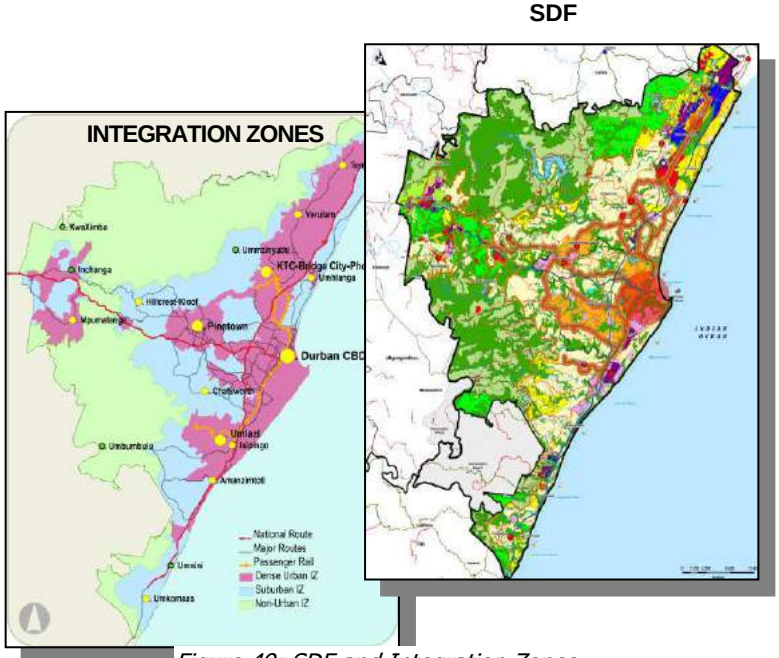


Figure 49: SDF and Integration Zones

[4] ETA Estimate

2.7.6 Integration Zones

The Integration Zones are a concept to spatially deal with objectives of city-building, especially inclusiveness, efficiency, and connectivity.

The eThekwini Integration Zones set out comprehensive spatial targets for all of the metropolitan extents. The departure point is that integration should not be limited to only selected spaces making up the core of the urban fabric, but that integration can and must occur within the whole city – within urban areas, suburbs and non-urban areas. These have been mapped as three distinct Integration Zones.

Each Integration Zone has an appropriate integration intervention and investment programme, that seeks to strike an appropriate balance between stimulating growth, meeting social pressures, and meeting constitutional and legal obligations.

Urban Zone	**Suburban Zone**	**Non-Urban Zone**
The Urban Zone is a two to four km wide belt around the metropolitan, provincial, and national movement system. It includes all of the significant urban centres, economic zones with high concentrations of infrastructure, jobs, and economic activities, and the adjoining residential areas. In addition to existing high-intensity uses, The Urban Zone contains numerous opportunities for intense brownfields or greenfields urban development, including almost all of the Catalytic Projects. This Zone also contains 90% of jobs (i.e. almost all), and 48% of the residences (i.e. roughly half). It occupies about a quarter of the municipal extents. The broad development strategy is to: • Maximise residential densities, and promote higher levels of LED to support the new densities • Fully upgrade informal settlements • Find opportunities to expand, intensify or redevelop properties for high density residential, and for economic uses • Install core infrastructure and establish institutional	The Suburban IZ is a one to two km wide low-density residential belt beyond the Urban Zone. It is home to 1.6 million people (about 43% of the population), on a third of the municipal extents. Commuting to work and higher order social facilities is the norm. There tends to be a reasonable level of local engineering services. This IZ comprises are townships and informal settlements which came about through apartheid planning which rely on public transport, and which tend to suffer from backlogs or inefficiencies in local social facilities. This IZ also comprises former Indian and white suburbs that rely on private transport. The broad development strategy is to: • Improve the connectivity of the suburbs to the Urban Zone. • Improve the quality and effectiveness of existing social facilities serving residential areas and in some cases to build new ones. • Promote higher residential densities through typologies that are appropriate for residential suburbs • Quickly provide informal settlements with universal access to basic services in	The Non-Urban Zone comprises low-density traditional areas, as well as densifying traditional areas, commercial farming and other open space and which in the past used to be isolated from the other parts of the city. Typically there are very basic services only, and poor or expensive connectivity to the city is typical. The Non-Urban IZ supports traditional lifestyles, agriculture and nature conservation, and is home to 8% of the population (one in every twelve persons), and about 43% (or nearly half) of the municipal extents. The broad development strategy is to: • Improve connectivity (roads and internet) • Improve local social facilities and access to basic engineering services • Provide higher order social facilities and economic opportunities in selected nodes • Encourage sustainable livelihoods and access to agri-processing and distribution.

arrangements and funding models to drive the City's own Catalytic Projects and to enable the Catalytic Projects led by others • Commission the first phase of the IRPTN and improve regional routes	parallel to the slower full upgrading program. • Promote LED	

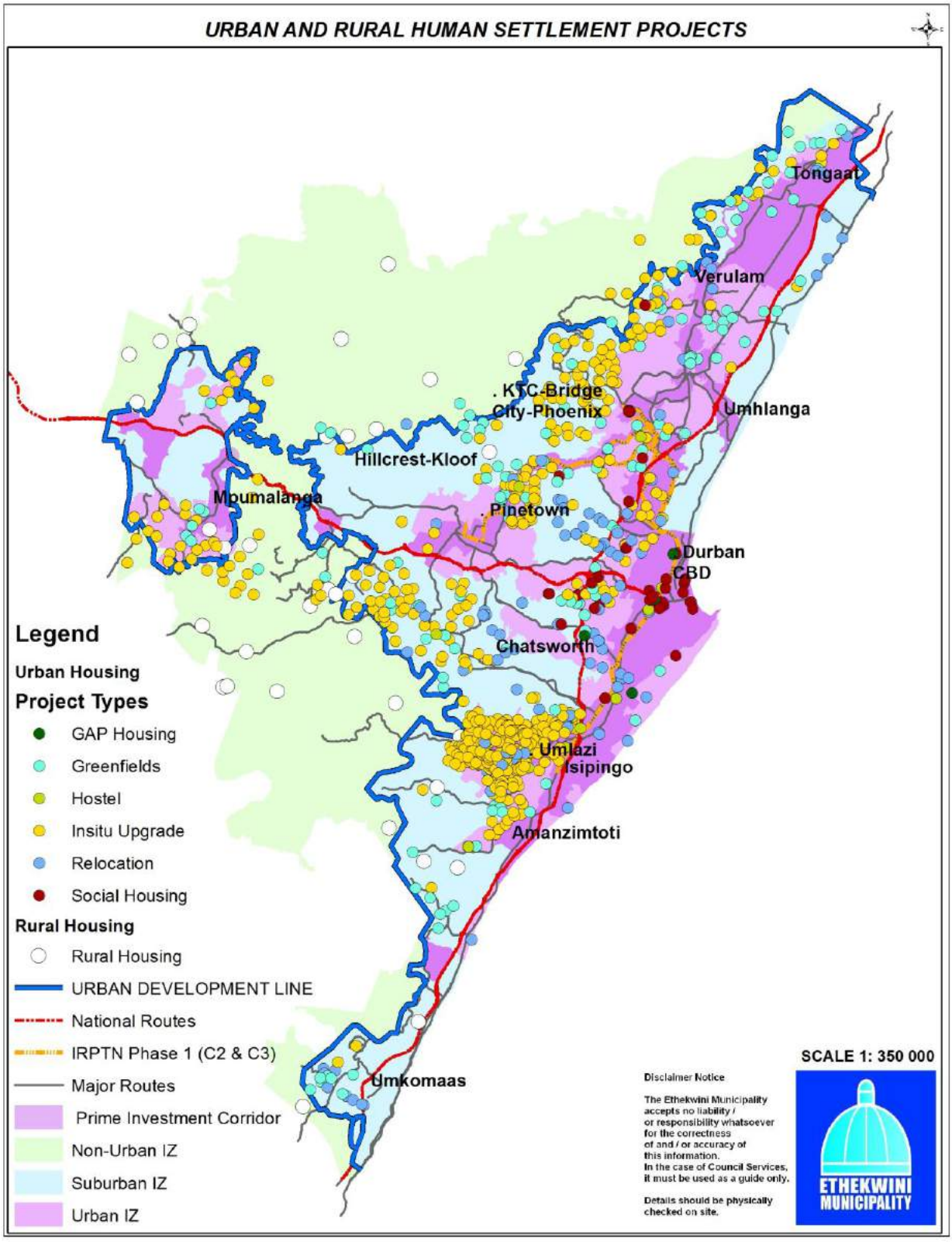


Figure 40: Urban and Rural Human Settlements Projects

2.7.7 Housing Mega-Projects

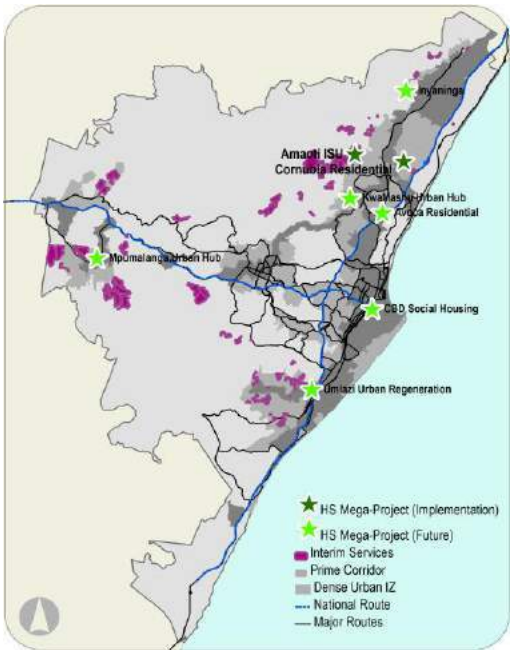
Programme features

Housing Mega-Projects:

- Are a type of Catalytic Project
- Create complete human settlements
- Cater for people in various income bands
- Aim at increased densities
- Are very well connected to public transport
- Are large, each over 5,000 housing opportunities
- Require major infrastructure investment
- Require a mix of public funds
- Aim to also leverage private investments including household investments
- Require highly developed and multiple skills to conceptualise
- Have multiple stakeholders [5]

eThekwini has about two dozen Catalytic Projects. The Human Settlements Unit have identified significant residential opportunities and have subsequently championed the following:

- Greater Cornubia (comprising Cornubia Phases 1 and 2 and Cornubia North)
- Inyaninga
- Greater KwaMashu-Bridge City Urban Hub
- Inner City
- Greater Amaoti Informal Settlement Cluster
- Greater Mpumalanga
- Umlazi Urban Regeneration
- Avoca North



Locational Criteria

Housing Mega-Projects are strategically located in integration zones. All of them are in the Urban Zone, except for Amaoti, which is in the Suburban Zone, and which therefore will be slightly less intensively developed than the others.

5 Guidance Note for the Built Environment Performance Plan 2015/16 – 2017/18. National Treasury, Oct 2014

Programme Scale

The programme intends to deliver from 170,000 to 270,000 housing opportunities. It is also intended to deliver numerous (though yet to be quantified) permanent jobs for maintenance of core infrastructure, operations of social facilities, staffing in local businesses.

Programme Origin And Duration

Cornubia pre-dates the programme start, and serves as a process template for the other Mega-Projects. The programme began to be conceptualised about two years ago, and elements of it appeared in the BEPP 2014-15. It was expressed as a deliberate programme in the form of a submission to National Department of Human Settlements (NDHS). The programme is likely to run for about two decades.

Budget Requirements And Funding Sources

The Mega-Projects programme needs about R 120 Bn in capital investments at current prices. R2.9 Bn appears in the Capital Budget for the current MTEF Potential funding sources include:

- Urban Settlement Development Grant
- Housing Settlement Development Grant
- Municipal Housing Capacity Support Grant
- Council Funds
- Other spheres for some of the social infrastructure, particularly schools and clinics
- Other spheres for some of the core infrastructure, particularly provincial or national routes, bridges and interchanges
- Private Investments, particularly for the development of commercial sites, and for developer contributions to core infrastructure.

Capacity or Systemic Requirements

A full-time multi-disciplinary project team of four to six people plus a pool of internal or external consultants would be the optimum arrangement needed for every Mega-Project. This level of resourcing is not currently in place, and attention will be given by the Human Settlements Unit and the Municipality during the current MTEF to resource the Mega-Projects adequately. In the meantime, the Human Settlements Unit has tentatively received medium-term funding support for staff and consultants.

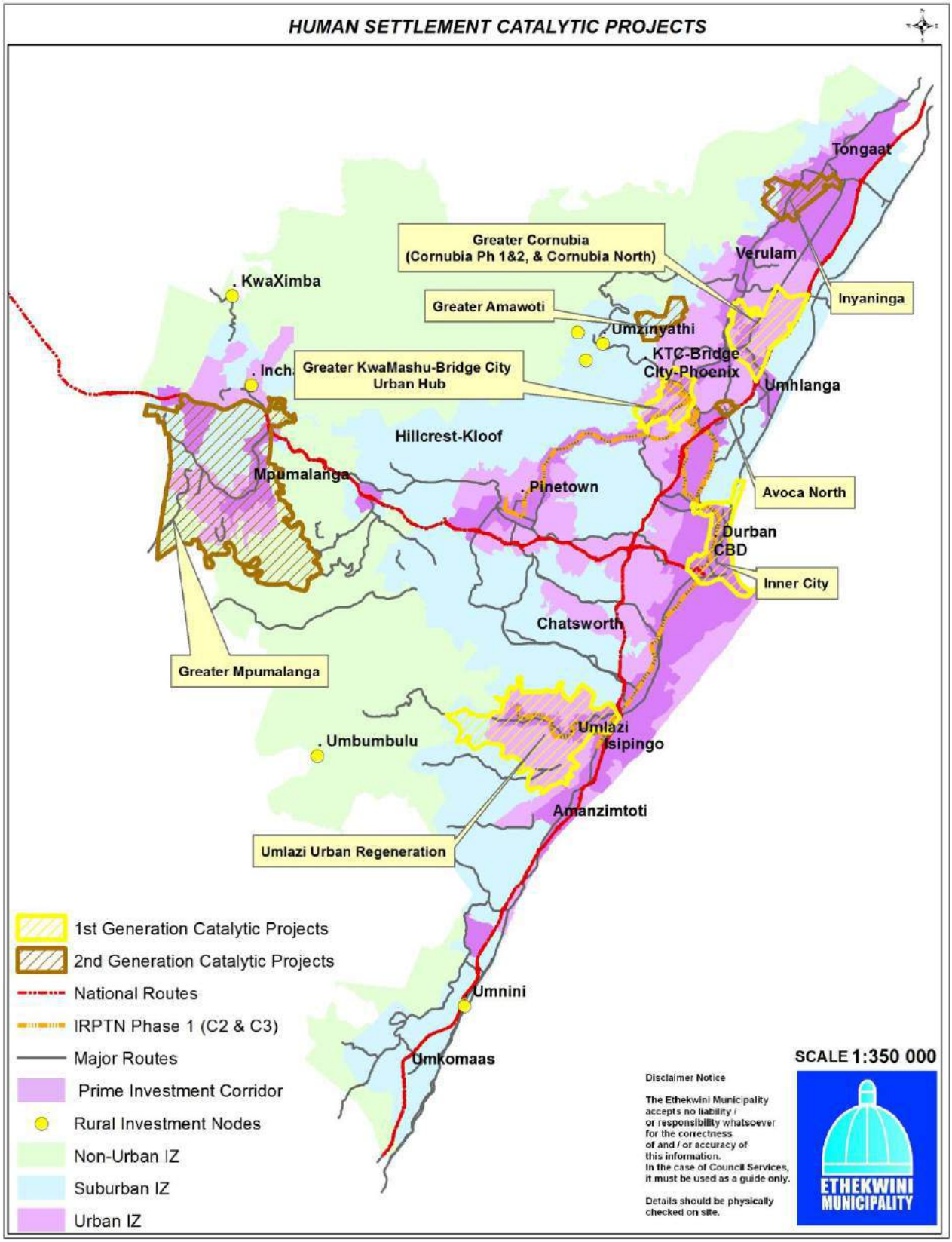


Figure 51: Mega Catalytic Project Map

2.7.8 Incremental Services

Programme Features

The Programme aims to promote social equity and social inclusion by providing every household in Informal Settlements with access to basic engineering services, basic social facilities, and local economic opportunities, as soon as possible. The project selection criterion is Informal Settlements that are earmarked for upgrade in the longer term. There are five sub-programmes, namely:

- Community Ablution Blocks
- Community Access - Access Roads, Pedestrian Paths, Emergency Infrastructure
- Electricity - Ablution Blocks, Streetlights, Individual Connections
- Access to social facilities, particularly fire and police stations, clinics, schools, and sports-fields.
- Sustainable livelihoods.

COMMUNAL ABLUTIONS



Locational Criteria

Most of the planned projects are in the Suburban Zone

Programme Scale

The current phase of the programme will benefit 70,000 households in approximately twenty clusters of informal settlements.

Programme Origin and Duration

This programme has its beginnings in the provision of water stand-pipes to informal settlements in the early 1990's. This was superceded by the provision of communal ablution blocks and refuse collection programmes in the mid and late 1990's. It was first expressed as a deliberate programme in the previous edition of the eHSP. The programme is intended to be complete in two MTEFs, if funds permit.

Budget Requirements and Funding Sources

Assuming a current-price benchmark of R 25,000 investment for each household, then the programme will require approximately R1.75 Bn. R270 Mill appears in the Capital Budget for the current MTEF At this rate it will take six MTEFs (eighteen years) to deliver the current phase of the programme, which is contrary to its intention to complete the programme in two MTEFs, and a resolution of this contradiction will be have to be sought. Current funding sources include:

- Urban Settlement Development Grant
- Other spheres for some of the social infrastructure, particularly schools and clinics

The Communal Ablution Blocks sub-Programme is reasonably well-resourced. About R1.Bn has been invested over the past three years. The other sub-Programmes all require to be significantly up-scaled to meet targets.

Capacity or Systemic Requirements

Each of the sub-programmes are separately managed and staffed.

Table 9: Sub-programmes, responsibility and Authority

Department	**Responsibility & Authority**
Collective	Project Selection & Prioritisation, Funding, Monitoring
Water Services	Community Ablution Blocks
Development Engineering	Community Access
Durban Electricity	Communal and Individual Electricity
Social Cluster	Social Facilities
Economic Development	Sustainable Livelihoods

The Collective needs to be put in place, and project preparation and implementation capacities need to be up-scaled for several of the sub-Programmes.

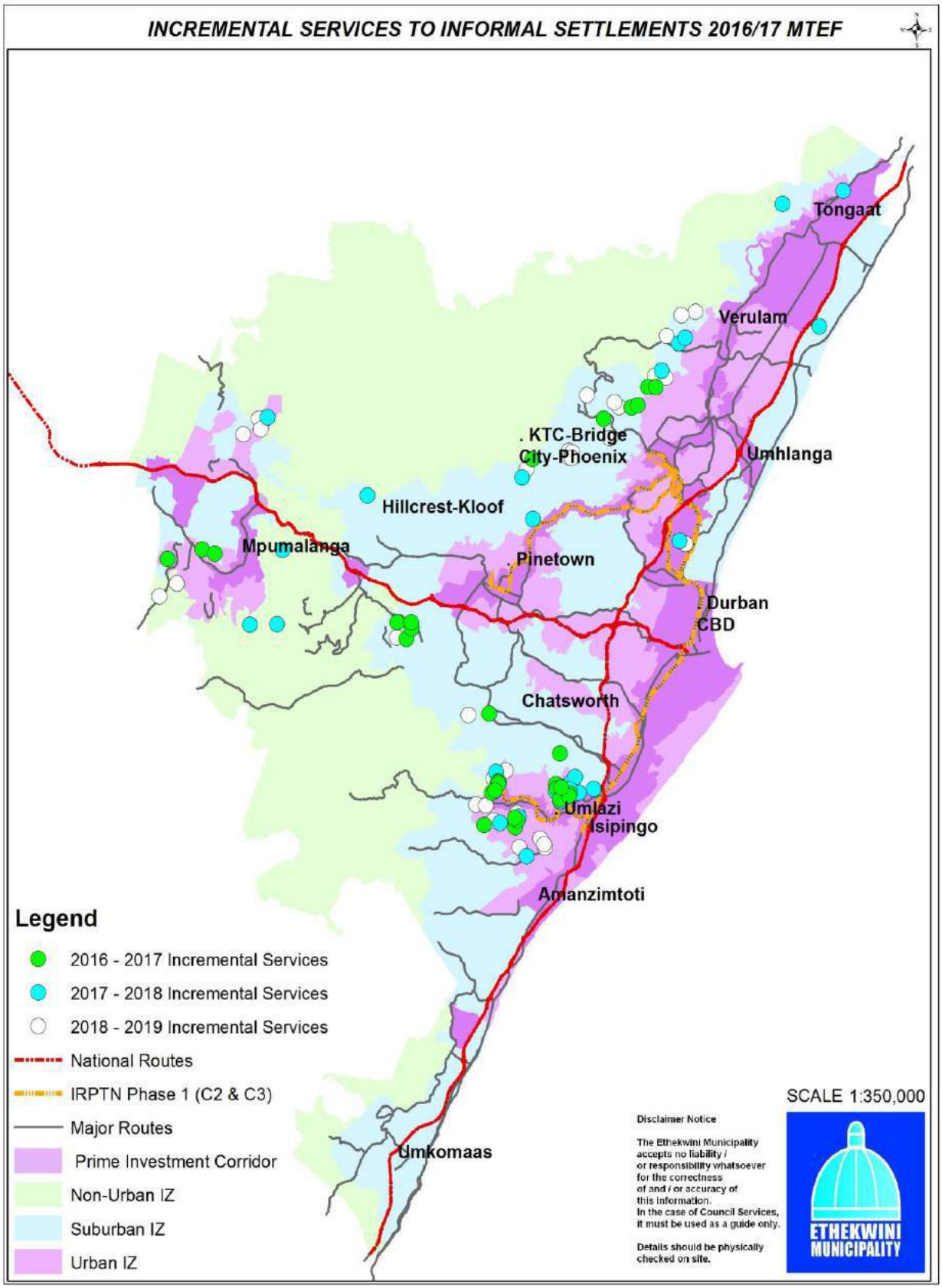


Figure 52: Incremental Services to Informal Settlements Map 2016/2017

2.7.9 Institutional and Social Housing

Programme Features

Institutional Housing aims to support vulnerable and special needs groups. It subsidises the capital costs of creating rental stock for income groups earning under R3,500 per month. The programme is typically implemented by Non-Profit Organisations (NPO's).

Social Housing aims to develop rental stock for income groups up to R7,500 p.m. Social Housing may result in refurbishments or new-builds. The programme is implemented exclusively by Social Housing Institutions (SHIs). Questions have been raised whether the income targets are sustainable under the available subsidy scheme quantum and given the operating costs required to meet the set standards. The Social Housing Programme needs to be viewed alongside a Private Rental sub-market, which targets a similar income band, and does so without subsidy, and without the building and operating standards.

Locational Criteria

Institutional Housing may be applied anywhere. Social Housing Programme must be in Restructuring Zones, which are identified by municipalities and approved by the NDHS and Province. eThekwini intends to assign the Urban Zone as a Restructuring Zone. A discussion has been initiated with NDHS, and resolution on this issue is intended during the 2016-17 year.

Programme Scale

These programmes have been small scale. The 2015-16 national review of the housing policies and subsidies however recognises that Social Housing plays an important city-building role, and is intended to be significantly up-scaled. Available statistics and plans suggest, there is scope for a programme of 100,000 units in either the Social or Private Rental sub-markets in the Durban CBD alone. Added to that the intention that Catalytic Projects should aim at a quarter to a third of residential units to be rentals, then there is scope for another 60,000 rental units.

Programme Origin and Duration

Housing for Special Needs and Vulnerable Groups has been traditionally supplied by faith-based and secular NPO's for over a century. Social Housing is however a relatively modern variation on public rental housing stock. The programme is a long-term one.

Budget Requirements and Funding Sources

Assuming a first phase of 10,000 units, then the capital requirements excluding land acquisition will be in the order of R3 Bn. Current capital funding sources include

- Social Housing Restructuring Grants
- Institutional Housing Subsidies
- Private Equity
- Development Finance

Capacity or Systemic Requirements

The Municipality's role is to facilitate investments by SHI's and NPO's. Social Housing is intended as a component for most of the Catalytic Projects. The capacity that is required to be developed by the Municipality is improved market intelligence on the sub-market size and profile, and on customer and supplier interest in the targeted locations. Where Council avails its own properties for Social Housing at a discount (as has been the case in the past) or via a lease agreement, or where it wishes to acquire land for social housing, then the capability to compile technical plans and strategic business plans needs to be developed. Given the small scale of the programme delivery to date, there will be a need for the number and supply capacity of SHI's to be developed.

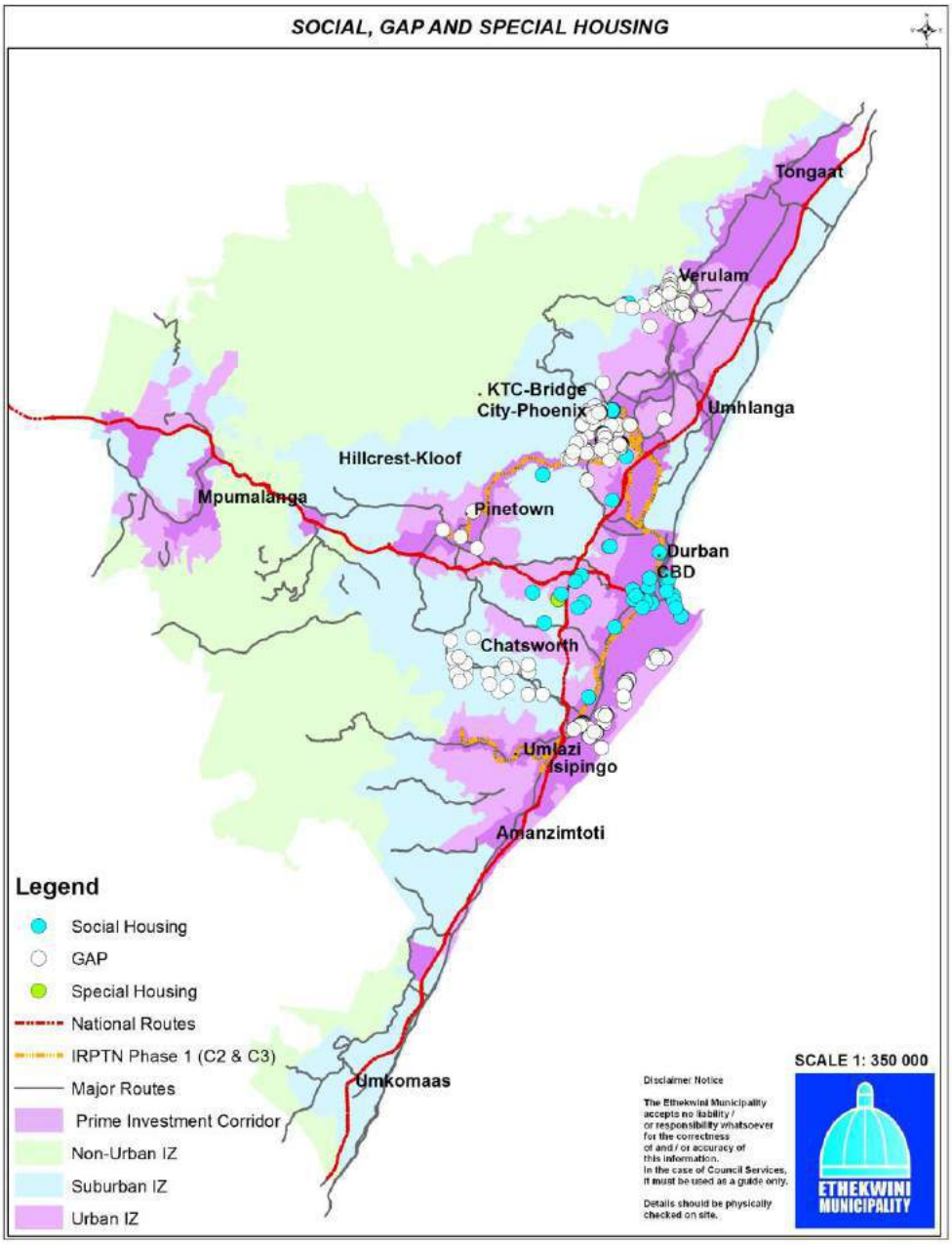


Figure 53: Social, Gap and Special Housing

2.7.10 Affordable Housing

Programme Features

To assist households in the affordable housing market the National Government avails financial assistance to individual households with monthly incomes of R3,500 to R15,000, and who are often excluded from the bond market. The government assistance takes the form of assistance to down payment for mortgage via the Finance Linked Individual Subsidy Programme (FLISP) and Mortgage Insurance. "This Programme [FLISP] provides access to state assistance where qualifying households wish to acquire an existing house or a vacant serviced residential stand, linked to a house construction contract through an approved mortgage loan. These properties are available in the normal secondary housing market or have been developed as part of projects not financed through one of the other National Housing Programmes. The Programme encourages the growth of the secondary residential property market…." [6] Affordable housing is developed privately. The city facilitates:

Sales of well-located land in infill locations to developers at cost, and
Identification of potential customer households in the affordable income bracket

Locational Criteria

This programme will promote projects in the Suburban and Urban Zones. This programme is intended to play a role in establishing socially integrated suburbs. In eThekwini the most prominent project in this regard is Cornubia where a mix of housing types for different income groups is planned.

Programme Origin and Duration

The programme is likely to run over the long term.

Programme Scale

The intended scale for this programme is in the process of being determined.

Budget Requirements and Funding Sources

Once the intended scale of the programme has been determined, the budget requirements will be determined afresh. Funding sources include:
Finance Linked Individual Subsidy Programme
Mortgage Insurance
Land sales at cost (indirect Municipal funding support)

Capacity or Systemic Requirements

The capacity and systemic requirements will be described once a Programme Scale has been determined.

[6] The National Housing Code, 2009: Part 1 Simplified Guide to the National Housing Code. Department of Human Settlements. 2009

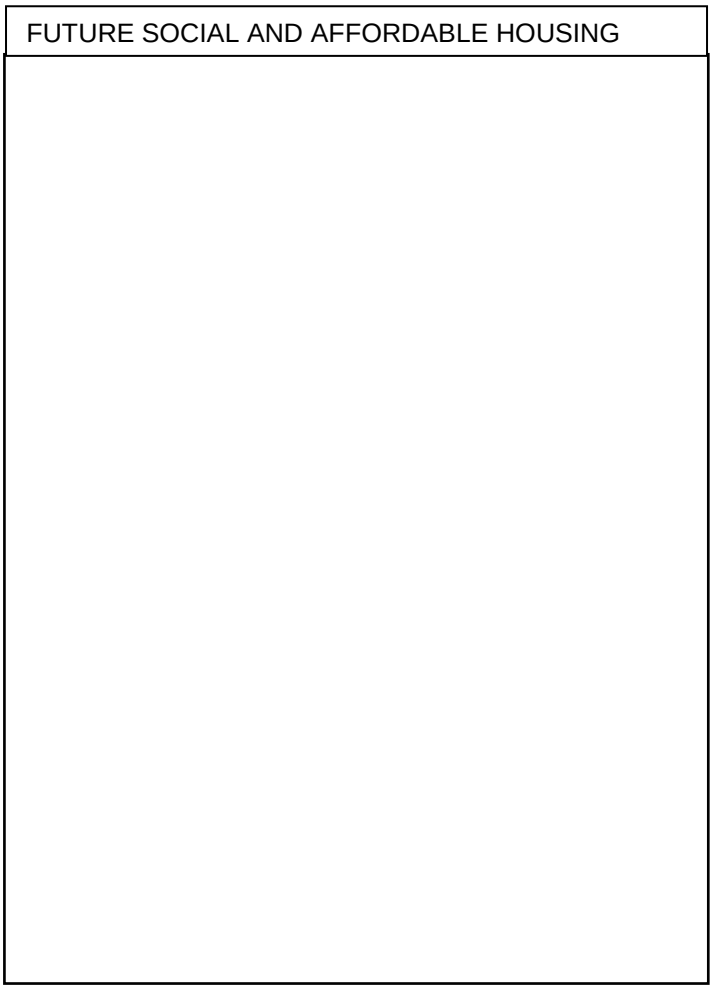


Figure 54: Future Social and Affordable Housing

2.7.11 In Situ Upgrades and Greenfields

Programme Features

The city has two significant inter-linked Incremental Programmes, In Situ Upgrades, and Greenfields Projects. The long-term aim is to upgrade all of the Informal Settlements that are technically viable for upgrade, and that aren't earmarked for Relocation. The Greenfields Programme is necessary, to absorb relocations from Upgrades projects. Typical deliverables of an Upgrade or Greenfields project include cadastral subdivisions, surfaced roads, water, sewer and electricity connections, and a minimum 40m^2 dwelling structure. Sites are typically created for social facilities, especially parks, schools and clinics for uptake by the respective public entities.

Locational Criteria

Most of the planned projects are in the Suburban Zone. The spatial targets for each of the Incremental programmes have been derived from the Housing Spatial Prioritisation Model.

Programme Scale

This programme will ultimately benefit approximately 300,000 households.

Programme Origin and Duration

The contemporary programmes originated from deliberations by the National Housing Forum in the early 1990's. The programme is multi-generational, because planning and delivery are slow (typically taking a dozen years from project inception to house construction), and on the other hand, the available capital funds cap potential delivery. At the current pace of delivery, and factoring in the current rate of growth in households in eThekwini, the programme will run for several generations

Budget Requirements and Funding Sources

Assuming a current-price benchmark of R180,000 investment for each unit in infrastructure and topstructure costs, and a delivery target of 30,000 over the next two MTEF's, then the programme will require approximately R5.4 Bn. Of this R 3.36 Bn appears in the Capital Budget for the current MTEF. Current funding sources include:

Urban Settlement Development Grant

Human Settlements Development Grant

Other spheres for some of the social infrastructure, particularly schools and clinics

Capacity or Systemic Requirements

In order to execute the directive to no longer plan freestanding houses but instead, in the Suburban Zone to plan pedestrianised duplexes, and in the Urban Zone, multi-storey walk-ups, the Human Settlements Unit requires to increase or reorganise its internal capacity to conceptualise and design. The Human Settlements Unit needs to increase capacity to administer top structure construction contracts, and to oversee the infrastructure contracts that the service department, Development Engineering delivers. The Human Settlements Unit also needs to supplement its capacity to finalise Infrastructure Handover to Line Department and Township Establishment. Additional capacity requirements that need to be put in place is a liaison structure with especially Departments of Education and Health to encourage their investments into those facilities. It has not however been resolved whether this liaison function resides with the Human Settlements Unit or with the Municipality's Social Cluster, and resolution on this point is intended.

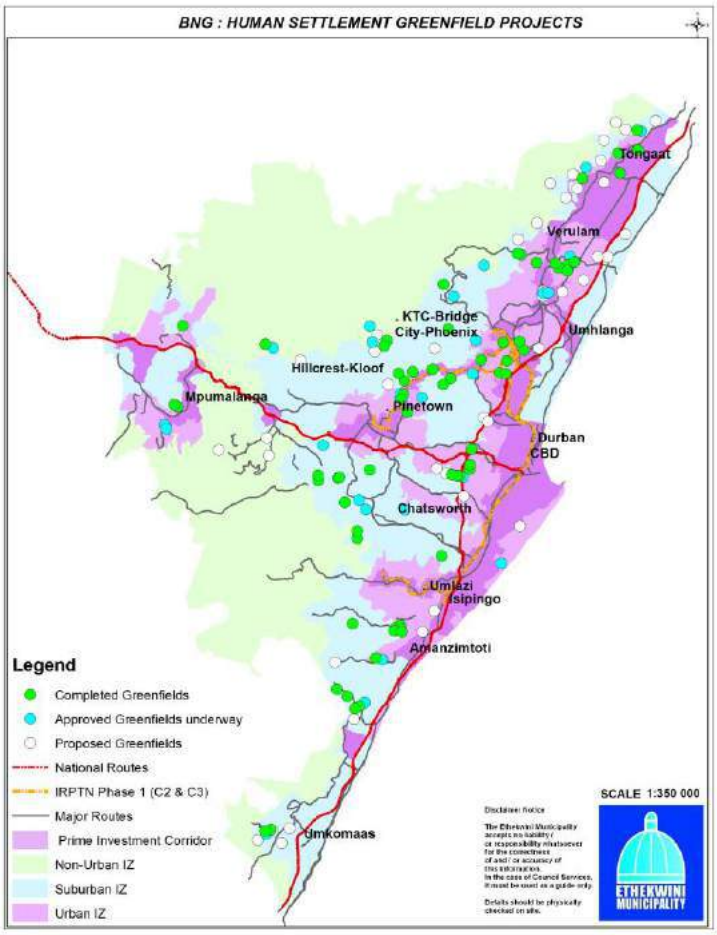


Figure 55: Greenfield Projects Map

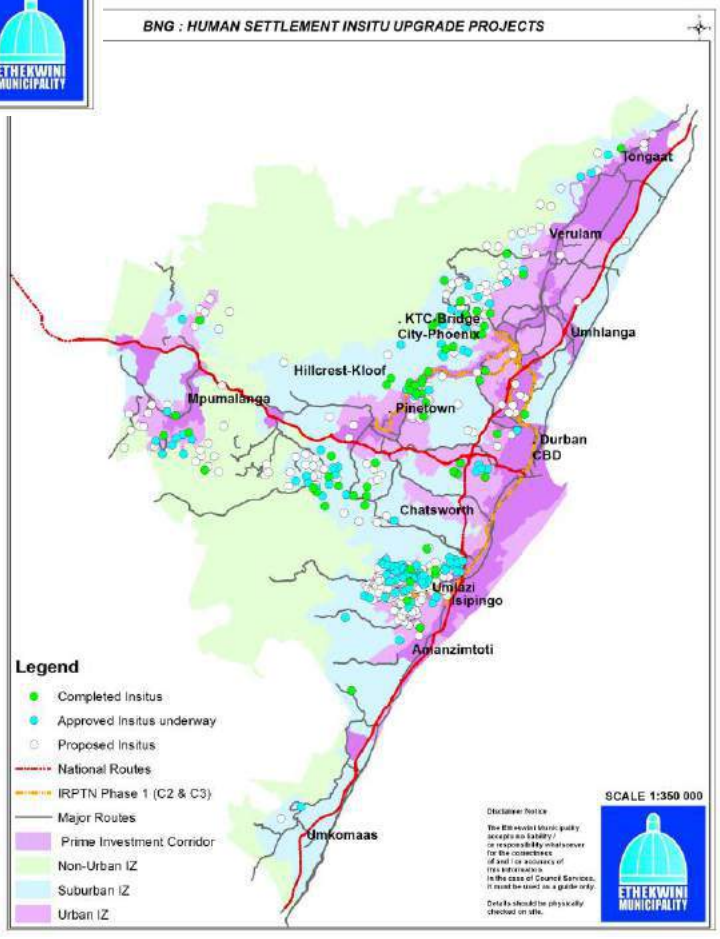


Figure 56: In Situ Upgrade Projects

2.7.12 Programme Impacts: Spatial & Social Transformation

Of keen interest are the impacts of the programme on spatial and social transformation.

Key Programme	Spatial and Social Transformation Benefits
Mega-Projects	• Creation of new rental and ownership residential stock • Provision of core, social, and economic infrastructure • Improved connectivity to the urban network • Improved PT thresholds
Incremental Services	• Tenure security • Inclusion of the poor and Provision of core and social infrastructure • Eradication of core infrastructure backlogs • Improved connectivity to the urban network
Institutional and Social Housing	• Creation of new rental and ownership residential stock • More efficient use of core and social infrastructure
Affordable Housing	
In-Situ Upgrades and Greenfields	• As for Incremental Services • Creation of residential ownership stock

2.7.13 Programme Implementation: Capacity Issues

There are several capacity issues around programme implementation that require resolution.

Key Programme	**Capacity Challenge**
Mega-Projects	Implementation of Municipal Housing Support capacity Grant's Business Plan to recruit programme manager and project managers and to procure outsourced technical support
Incremental Services	• Integration of the five sub-programmes into a single programme • Establishment of a management system and PSC to serve over the next two MTEFs
Institutional and Social Housing	Up-scaling of the programmes
Affordable Housing	
In-Situ Upgrades and Greenfields	Improved IGR, especially joint budgeting and planning with Departments of Health and Education.

2.7.14 Programme Implementation Responsibilities for the Key Programmes

Discrete programme implementation responsibilities are spread across several line departments, as well as across some external parties.

Generally the Human Settlements Unit assumes the lead role to Select Projects, Prepare Concepts, and Acquire Land, and take the Top-structure elements to Construction.

For the Core Infrastructure elements of where land development is a requirement (typically in Mega-Projects, Incremental Services, Upgrades and In Situs) , generally there is a delegation of responsibility and authority to Development Engineering to Design in Detail, Go to Tender and to Construct.

Key Programme	Select Projects	Prepare Concepts	Acquire Land	Design in Detail	Tender and Construct	Fund Capex	Operate and Maintain
Mega-Projects	EH EM	EH EM	EH EM	EH Others [7]	EH Others [8]	Various [9]	Line Various [10]
Incremental Services	EH	EH	EH	Dev Eng	Dev Eng	USDG	Line
Institutional and Social Housing				SHI EH	SHI EH	Various [11]	SHI Line
Affordable Housing				Private	Private	Various [12]	Private
In-Situ Upgrades and Greenfields				EH Dev Eng	EH Dev Eng	USDG HSDG	Line

Key

EH eThekwini Housing/Human Settlements Unit

EM eThekwini Municipality (inclusive of all service units as required)

Dev Eng Development Engineering

SHI Social Housing Institution

USDG Urban Settlement Development Grant
HSDG Housing Settlement Development Grant

[7] Development Engineering, SocialHousing Institutions, Private Sector, Dept Public Works
[8] *Social Housing Institutions, Private Sector, Dept Public Works
[9] Urban Settlement Development Grant, Human Settlement Development Grant, Community Residential Units, Social Housing Restructuring Grant, Equity, Loans
[10] Social Housing Institutions, Private Sector, Dept Education, Dept Health
[11] Urban Settlement Development Grant, Human Settlement Development Grant, Community Residential Units, Social Housing Restructuring Grant, Equity, Loans
[12] Ibid

2.7.15 Program Implementation: Capital Budgets

Programme		2016-17 Rm	2017-18 Rm	2018-19 Rm	MTEF Rm
Mega Projects		Varies	Varies	Varies	**2.916**
Incremental Services	Community Ablution Blocks	259	211	250	**720**
	Community Access	90	90	90	**270**
	Electricity	11	16	40	**67**
	Social Facilities	0	0	0	**0**
	Sustainable Livelihoods	0	0	0	**0**
Institutional and Social Housing		0	0	0	**0**
Affordable Housing		0	0	0	**0**
In-Situ Upgrades and Greenfields	Topstructures	644	739	803	**2,159**
	Core infrastructure	405	396	405	**1,205**
TOTAL		**1,409+**	**1,452+**	**1,588+**	**7,337**

Challenges in financing the Key Programmes include:

- Lack of year-by-year certainty for Mega-Projects, mainly due to many of them being in the early phases of the Programme and Project Lifecycle.
- A need for greater quantums for the Incremental Services programme, particularly for Community Access and Electricity Sub-Programmes.
- Absences of budget for Social Facilities and Sustainable Livelihoods under the Incremental Services Programme, mainly attributable to the absence and-or non-integration of Sub-programme Descriptions.
- Absences of budget for Institutional and Social, and Affordable Housing, mainly due to a need to re-conceptualise the Programme Descriptions.
- Better matching of budget to ensure that construction of Core Infrastructure keeps up with Topstructure construction.

Spatial Reference

The Human Settlements Unit utilises a prioritisation model in developing its project pipeline. The model principally prioritises housing projects according to location. It is applied to all types of housing projects namely Greenfields and Upgrading Projects, but not to Rural projects. The following criteria have been developed to assess the locations of future projects:

- Bulk Infrastructure Costs
- Personal Travel Costs
- Integrated Rapid Public Transport Network (IRPTN)
- Employment and Economic Opportunities
- Basic Social Facilities (Primary/Secondary Education and Health Care)
- The Urban Development Line (UDL)

Improved locations of housing and improved accessibility, especially of low-income housing, is a major goal of the Housing Sector Plan. High scoring projects are generally located within the Prime Corridor and Dense Urban ICDG Zones.

Having incorporated the criteria into a Geographic Information System (GIS) and utilising a scoring matrix, a priority list of informal settlements earmarked for upgrade projects was generated for instance. The rationale was for the housing delivery programme to work its way from the top of the list viz. selecting those settlements that were least costly to implement from a bulk infrastructure perspective and those that were fairly well located. On the other hand, settlements that did not score so well on the matrix viz. those at the bottom of the list (where the affected households would have had to wait longer for a housing intervention) were identified for the Incremental Services programme. The idea being that as both the housing delivery programme and the Incremental Services programme work their way from the top and bottom of the list respectively, they will eventually meet somewhere in the middle having covered all settlements with some form of intervention.

The following lists and maps (attached as Annexure 13) represent the Human Settlement Projects completed, underway and proposed:

1. MTEF List of Human Settlements Projects (including Housing Infrastructure and Incremental Services)
2. Map: 2016/17 BNG Projects
3. Map: 2017/18 BNG Projects
4. Map 2018/19 BNG Projects
5. List of Informal Settlements
6. List of Greenfield Projects
7. List of Social Housing Projects
8. List of Special Housing Projects

Broad Challenges to Housing Delivery

- Available funding versus the demand for housing within the City.
- The current housing subsidy quantum does not take into account or cover the escalating costs for certain key aspects such as steep terrain, retaining walls and densification.
- Unavailability of Bulk infrastructure (sewer, water, electricity and roads) and/or aging infrastructure especially in historical projects.

2.8 Social Facilities at eThekwini Municipality

Social facilities are publicly and privately owned and operated properties and/or services which are publicly accessible, which deal with social development and socio-economic development, and which are necessary components of sustainable human settlements. Social facilities include:

- Health
- Fire Protection and Emergency Services
- Police
- Education
- Sports and Recreation
- Social Grants
- Cemeteries
- Government Offices

Improved quality of life for eThekwini citizens means that they are able to enjoy equitable opportunities to participate in culture, leisure and education, such as those that are available through community facilities. Ensuring full service provision of community facilities needs to be closely guided by service standards, and requires the necessary operating funds to sustain these facilities on a day to day basis.

The provision of community facilities and services is guided by the standards developed by municipal line departments and are based on a combination of national norms and the ability to sustain these standards given municipal budget constraints.

An Access Model has been developed to match the demand for facilities, based on population numbers and income and age profiles, with the supply and capacity of facilities geographically. The social services currently included in the Access Model are Primary Health Clinics, Community Health Centres, Primary Schools, Secondary Schools, Libraries, Fire Services, Community Halls, Sports Fields, Indoor Sports Halls, Sports Stadia, Swimming Pools, Cemeteries, Parks, and Police.

This assessment shows the nature and extent of facility backlogs across the Municipality and all requests for the construction of new facilities are currently being assessed within this context.

2.8.1 Service Levels and Backlogs

According to the Access Model, the current levels of service for social facilities are as shown alongside. A capital development program is in the design phase to respond to the most critical under-provisions of service. Overcoming under-provision in security, fire protection, health care, education (including libraries), cemeteries and basic recreation are likely to be prioritised.

Table 4: Current Levels of Service for Social Facilities

Facility	Current service coverage as % of the 2006 population.
Police	No figures at present
Clinics	56%
Cemeteries	Not measured as %
Primary schools	83%
Secondary schools	77%
Libraries	70%
Fire Stations	72%
Sports fields	91%
Parks - local	Under Review
Indoor Sports Halls	71%
Sports Stadia	80%
Swimming Pools	70%
Parks - regional	Under Review
Community Halls	79%

2.8.2 Reconsidering the Basic Approach to meeting Community Facilities Backlogs

About R 4.5 billion would be required for the construction costs of all facilities proposed by the Access Model. Additional funds would be required for land acquisition, equipment, staffing, and other operating costs. For the MTEF period ending 2011/12, eThekwini Municipality committed R 83 million for a pilot program for essential social facilities.

Social facilities are either funded by the Municipality or Provincial Line Departments. For some types of facilities such as libraries and clinics there are overlapping funding responsibilities. The pricing of the Optimal Locations compared to the Capital Environment prompted the need to reconsider the basic approach.

Some of the new thinking to emerge was to:

- Distinguish Essential Services from Desirable Services, and by applying different accessibility levels for Essential Services and Desirable Services, reduce the capital requirements
- Through the cataloguing process, discover “hidden” facilities – hidden either because they had not been recorded at all or their sizes had been under-estimated (both of which seems to be the case for local and regional parks), or hidden because they have not until now been regarded as social facilities (which is the case for school sports fields, though with many notable exceptions where school fields also already serve as community fields). The discovery of hidden facilities ought to lead to a revision of the current accessibility, and consequently a smaller backlog than originally thought.
- Reduce the space standards and-or planning thresholds for some facilities, particularly basic recreation.
- Rather than build new facilities or expand existing ones, increase the operating capacity at existing facilities, through increased opening hours, increased opening days, equipment improvements, and process improvements

- Expand existing facilities rather than build new ones
- Only consider building new facilities after the possibilities of increasing operating hours and-or building extensions at existing facilities would not be enough or nearly enough to meet local backlogs.
- If a new facility was indeed required, then consider building adjoining an existing facility
- If a new facility was required and it could not be adjoined to another facility, then find a site adjacent to the existing facility, and if this was not possible, then find a site within close proximity (less than 400m))
- Only consider building stand-alone facilities on their own sites and isolated from other social facilities as a last resort.

Based on the distinction of Essential Facilities and Desirable Facilities, the funding requirements of social facilities are as shown below.

Table 5: Funding Requirements of Essential Social Facilities

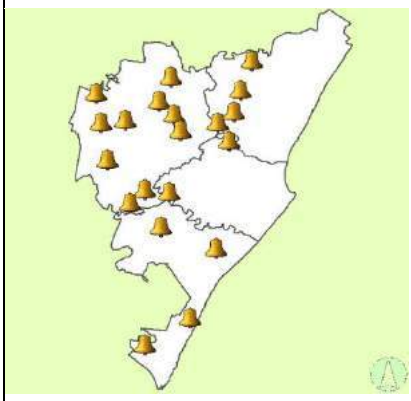
ESSENTIAL FACILITIES	Current accessibility	Accessibility after new 'big impact' facilities	No. of proposed new 'big impact' facilities		Average Total Costs 2011 Baseline
Clinics	56%	93%	19	No.	108
CHCs	56%	93%	7	No.	79
Fire Stations	72%	85%	8	No.	151
Primary schools	83%	100%	20	No.	403
Secondary schools	77%	99%	21	No.	582
Libraries	70%	92%	11	No.	166
Sports Fields	91%	91%	0	No.	0
Cemeteries	-	-	-	Ha	157
Police Stations	?	?	?	No.	**?**
Subtotal			**86**		**1,648**

Table 6: Funding Requirements of Desirable Social Facilities

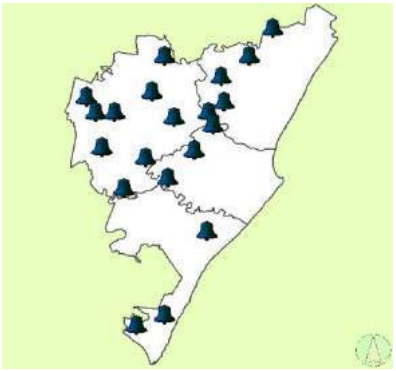
DESIRABLE FACILITIES	Current accessibility	Accessibility after new 'big impact' facilities	No. of proposed new 'big impact' facilities		Average Total Costs 2011 Baseline
Indoor Sports Halls	71%	71%	3	No.	66
Sports Stadia	80%	80%	4	No.	202
Swimming Pools	70%	70%	8	No.	227
Local Parks	Under Review	100%	687	Ha	1,731
Regional Parks	Under Review	100%	188	Ha	710
Halls (A, B, C)	79%	79%	8	No.	60
Subtotal			**898**		**2,996**
TOTAL			**984**		**4,644**

2.8.3 Spatial Distribution of Proposed Additional Capacity of Selected Essential Social Services

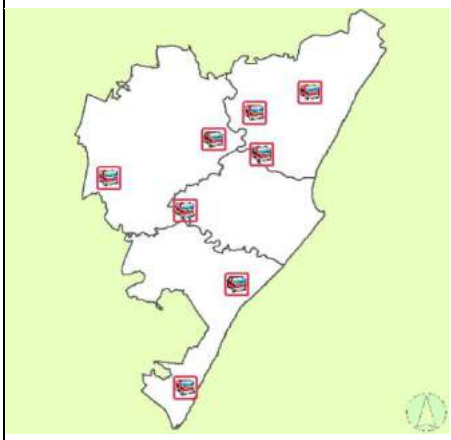
Primary School Capacity



Secondary School Capacity



Fire-fighting Capacity



Health-care Capacity

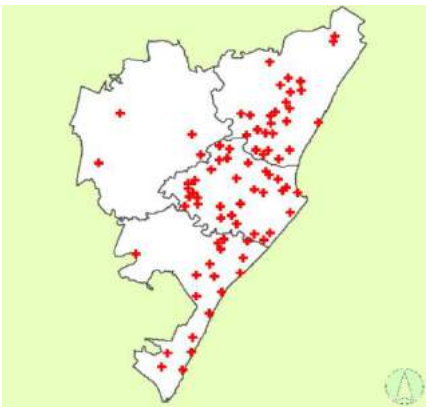


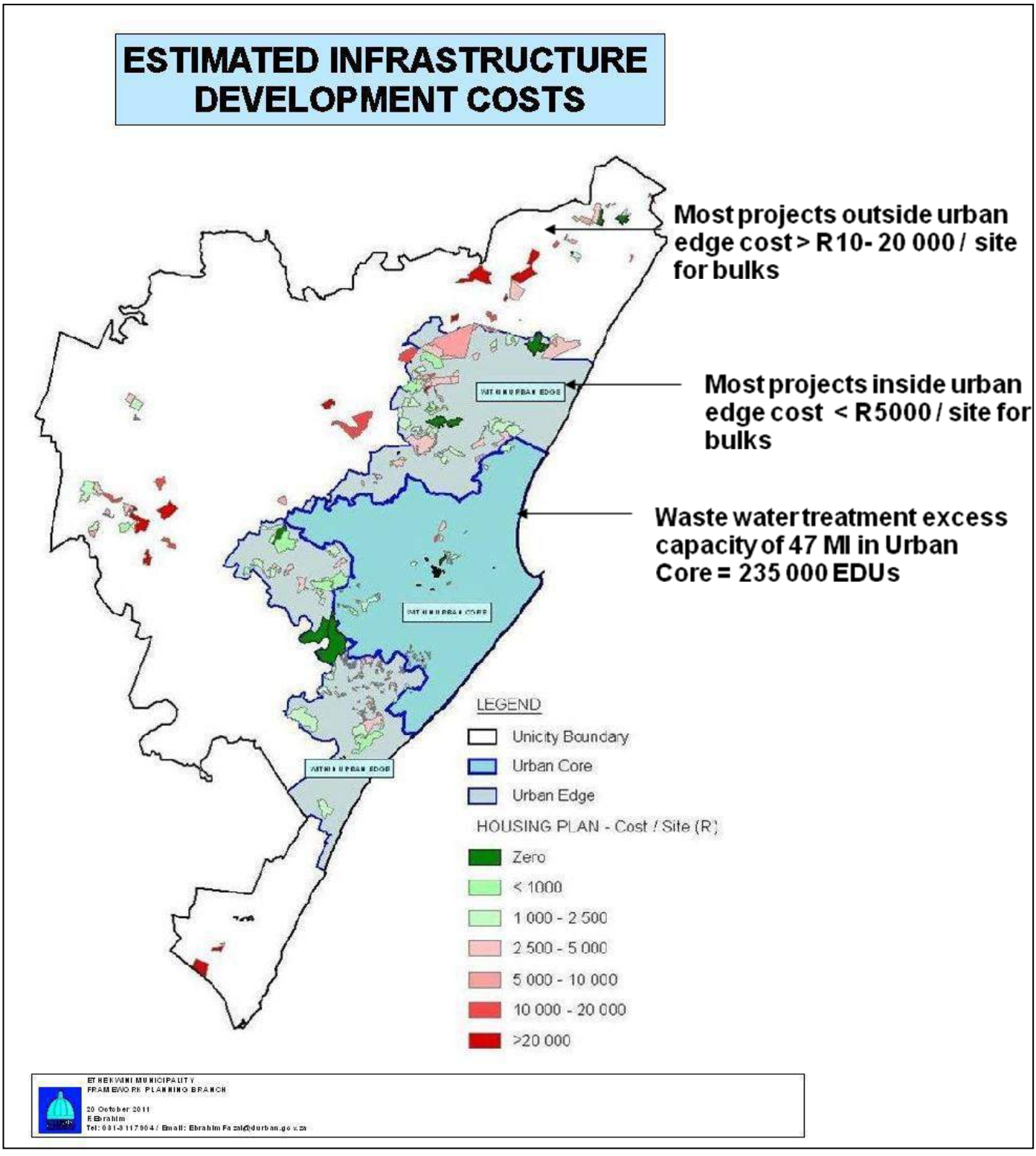
Figure 57: Proposed Additional Social Facilities

2.9 Infrastructure Services

The Municipality has substantial excess capacities in central areas for certain engineering services and most social services. However, developments have tended to happen in the outskirts of the Municipality where there is limited bulk infrastructure and services. The property boom of the last few years has placed significant pressure on road and sewer infrastructure particularly in the northern and western regions and the inability to expand these systems 'ahead of the growth' has to some extend retarded this growth. The slowdown is now providing the city with an opportunity, within its resource capacity, to address bottlenecks over the next few years to resume more efficient and more equitable growth through the timeous supply of infrastructure in key growth areas.

The challenges with regards to bulk infrastructure cost and availability has a direct relationship to the provision of housing especially low income housing. Over the years the trend with housing development and location in the Municipality has mainly been based on the availability and cost of land rather than infrastructure costs. This has led to infrastructure backlogs which are associated with high infrastructure cost as these developments are built in inaccessible peripheral locations outside the urban /services edge. Development beyond the 'infrastructure/services edge' is also outstripping current infrastructure capacity budgets. This causes delays in development and also results in development occurring in inappropriate areas.

For financial sustainability more housing projects should be encouraged inside the infrastructure services edge. Developing inside the infrastructure services edge and within the urban core will promote densification in accessible areas while creating thresholds for Public Transport**.** The following map shows the comparison costs of developing within and outside the infrastructure services edge:



Source: eThekwini Municipality: Engineering Unit

Figure 58: Infrastructure Development Cost

2.9.1 Water

The water supply to the KwaZulu-Natal Coastal Metropolitan Area is experiencing serious difficulties. Poor long term infrastructure planning and decline in investment in bulk infrastructure over the last 20 years and above average rainfall over the last few years has led to a false sense of security regarding the water supply situation.

A below average rainfall period will result in the need for water restrictions with their associated impacts on the local economy. The continued economic growth and development of the KwaZulu-Natal Coastal Metropolitan area requires an assured water supply in line with DWA's policy of water for growth and development.

The Springrove Dam was commissioned in November 2013 and notwithstanding the additional capacity that will be available once completed, eThekwini will continue to suffer from a water supply shortage. Water recycling may, if all the approvals are received, come on stream in 2016 but more efficient utilisation of the existing resource is a priority. From the point of view of current water supply, there is insufficient supply to deal with any further development as envisaged in the SDF and SDPs

With the commissioning of Spring Grove Dam the level of assurance of the Mgeni System is above 95% but is still less than 99%. The situation is sufficiently severe that water restrictions are inevitable once rainfall returns to normal and the Head: Water and Sanitation has reported this to the eThekwini Council with a recommendation that a senior political delegation request a meeting with the Minister of Environment and Water Affairs to unblock the obstacles around bulk water supply and the finalisation of river reserve determinations.

In the area of current water delivery, 91% of households have water available within 200m of their dwelling. To cater for the indigent, the Municipality as part of its welfare package provides a basket of free basic services which include water, sanitation, and electricity and refuse removal for informal and rural settlements in accordance with a defined level of service. In addition, those consumers living in formal properties having a maximum property value of R120000 are considered to fall in the indigent category and therefore also benefit from free service delivery. The statistics recorded in the 2011/12 municipal scorecard already reflect the above but a new set of KPIs has been introduced to clearly reflect the percentage of estimated indigent households with access to free basic services.

In respect of the provision of water, sanitation and electricity to schools and clinics, the role of the Municipality is to ensure that either bulk infrastructure is available to allow connections, or that acceptable levels of service are defined to enable appropriate action to be taken by the provincial Education and Health authorities.

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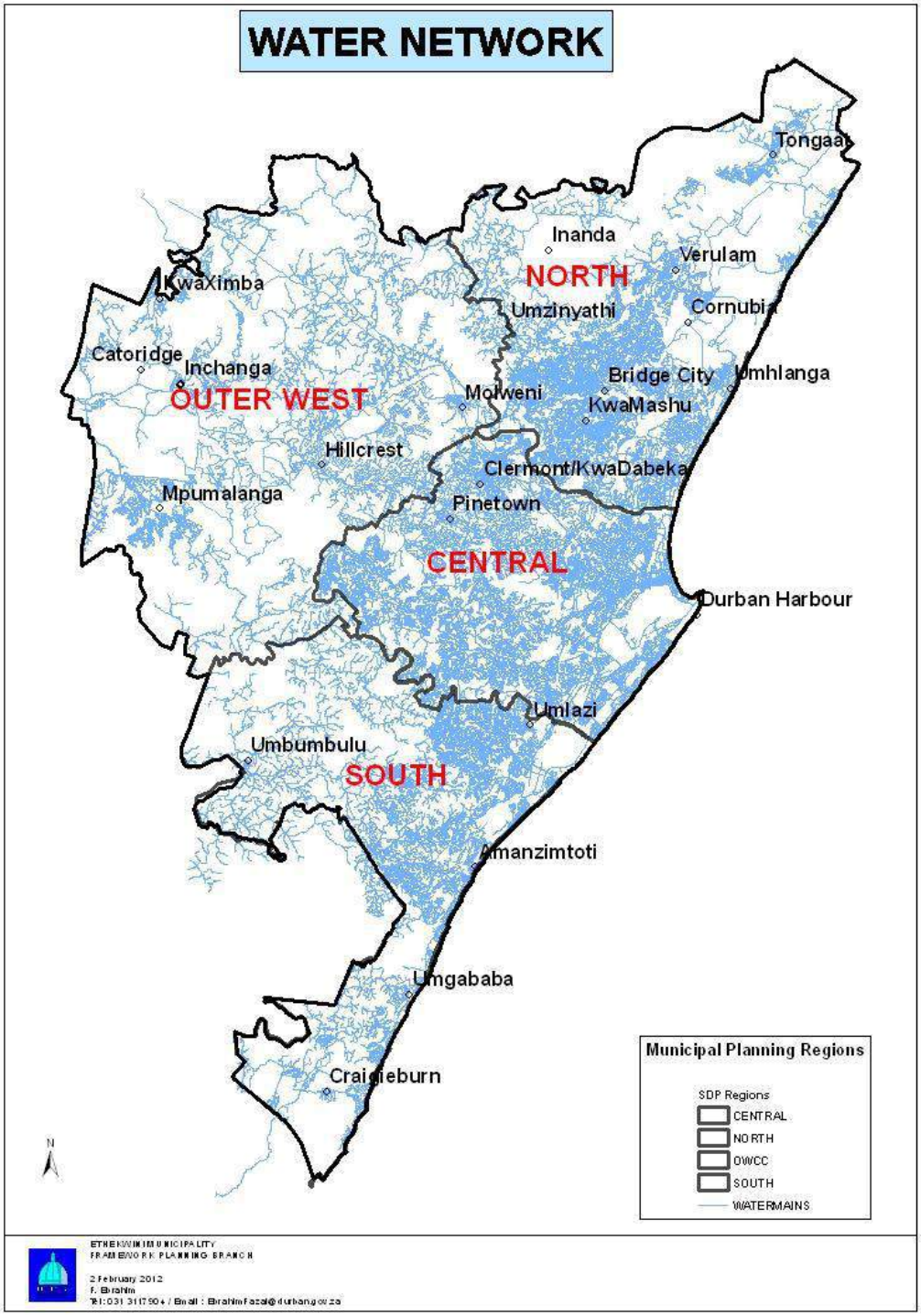


Figure 59: Existing Water Network

Section 3.1.3 explained that there are three potable water supply dams located in eThekwini Municipality: Hazelmere Dam; Inanda Dam and Nungwane Dam. However, as shown in Figure 29, the primary water supply for eThekwini Municipality is obtained through the Mearns Weir and the Spring Grove Dam located on the Mooi River and the Midmar Dam, Albert Falls Dam, Nagle Dam and Inanda Dam located on the uMngeni River.

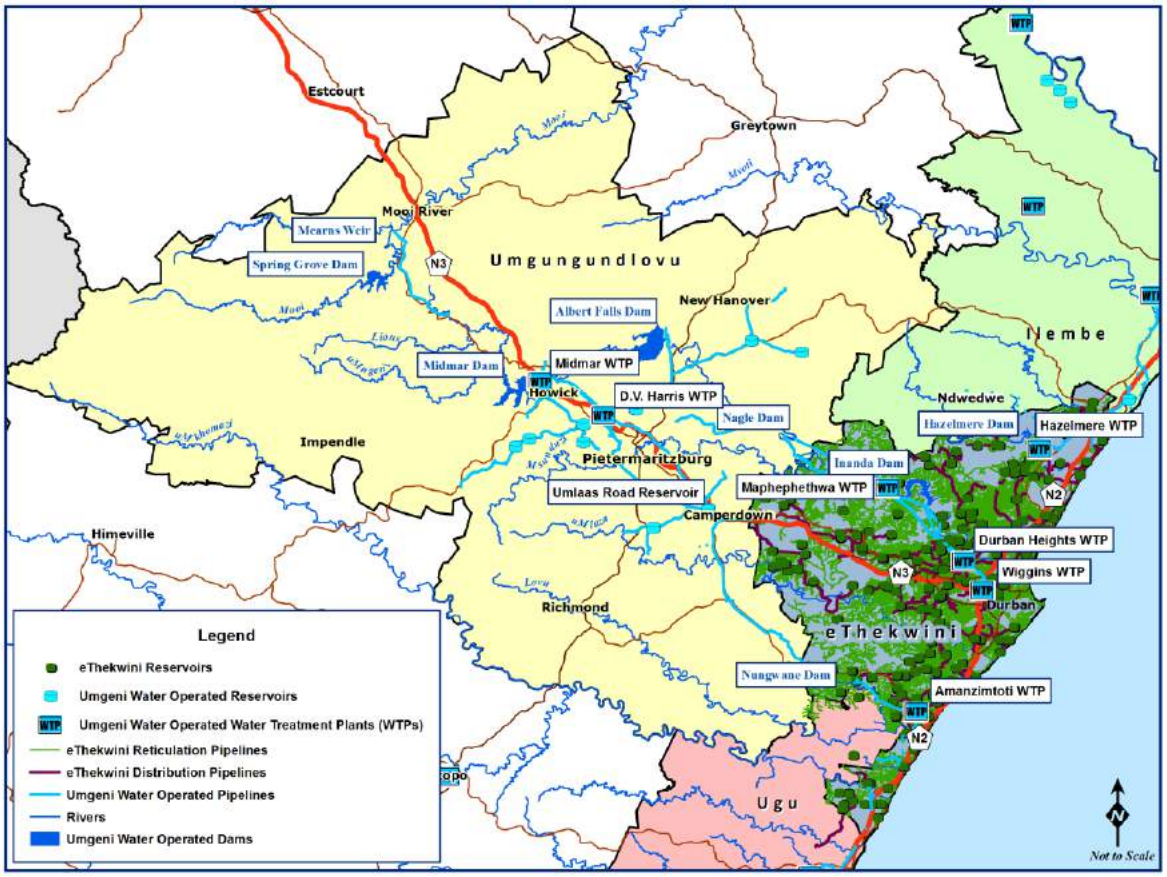


Figure 60: Bulk water supply infrastructure for eThekwini Municipality

2.9.2 Sanitation

The central and suburban regions of EMA are serviced with a water-borne sewerage system that transports sewage to a number of sewage treatment plants for treatment prior to final discharge in the Indian Ocean. There is spare capacity in the Central core area of the Municipality (approximately 100Ml/day, less in the North and South and very limited capacity in the Outer West (less than 2Ml/day). In line with the planned growth trajectory to the North, the Municipality is planning upgrades and a new regional works on the UMdloti River.

The outer peri-urban and rural areas, as well as informal settlements, are provided with on-site sewage disposal. The supply of basic sanitation to the poor households (ventilated improved pit latrines for dense settlements and urine diversion (UD) toilets for less dense settlements) is funded by national government. The UD toilet is the Municipality's preferred method of sanitation in less dense settlements.

The following map represents the existing sewerage network for the Municipality:

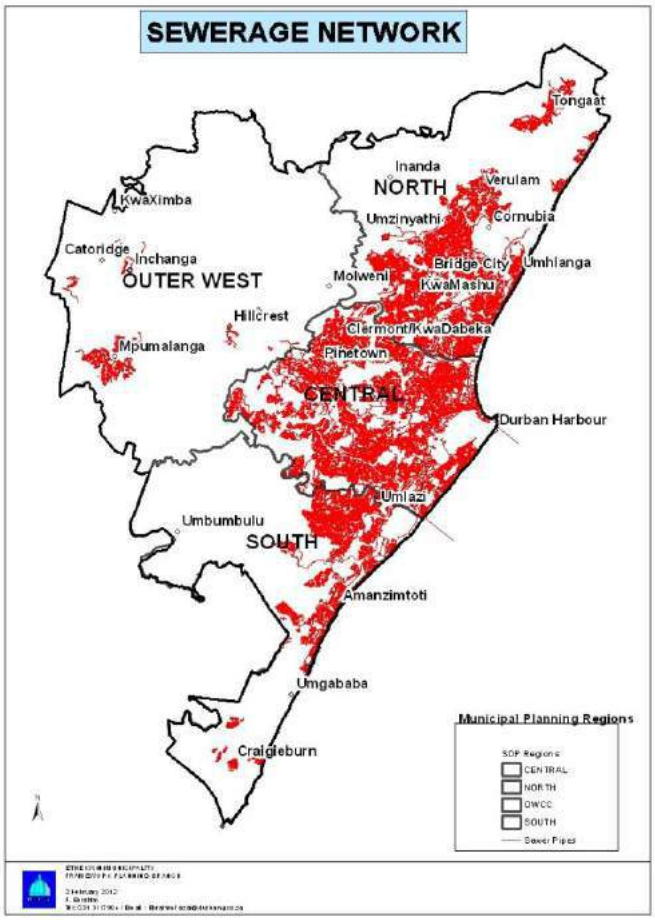


Figure 61: Existing Sewerage Network

Providing a sewerage service for further development can necessitate expanding existing sewage treatment works and/or building new works. Under the National Water Act, to undertake either of these activities an application for a water use license must be made. Before a license application is assessed by the Dept of Water Affairs (DWA) the ecological reserve of any affected water resource must be established.

Although the ecological reserve determination studies have been completed for a number of the eThekwini estuaries - and submitted to DWA by the specialists - these studies have not been finalized by DWA.

However, it already seems to be clear from a sewerage planning perspective that, if the intentions of the ecological reserve process are to be met, and the current land uses in the SDPs remains unchanged, a combination of direct re-use of treated sewage effluent for potable water supply and some quite extensive and expensive, cross-catchment pumping, will have to form the basis of future sewerage planning.

2.9.3 Solid waste

The dominant method of disposal at the EMA is done through landfills. Over 1 million tons of waste per annum is accepted by the four main landfills in the municipal area. EThekwini Municipality's waste management unit, Cleansing & Solid Waste (DSW), has been responsible for ensuring that the waste sector is one of the most active in initiating actions that contribute towards a reduction in carbon emissions with the first landfill gas to electricity projects in Africa at two of its sites.

DSW has also promoted a number of options for recovering materials that would otherwise end up on a landfill.

These include:

* Separation at source with curbside collection (also known as the Orange bag system) and are in the process of extending this with the introduction of the clear bag for glass & metals.
* Material recovery facilities where recyclables uncontaminated by other wastes are recovered, which include drop off centers, buy back centers and mixed waste materials recovery facilities.

The Lovu Landfill was commissioned on 1 July 2014 to cater for refuse disposal in the southern region of the City. Bisasar Road Landfill closes on 18 January 2016 after serving the City for some 35,7 years. The Municipality runs 3 landfills namely: Buffelsdraai, Mariannhill & Lovu.

The landfill at Bul Bul, owned by Wasteman, is closed at this time but they are attempting to get the site reopened, for a short period, as part of the rehabilitation process. The only other private landfill is that owned by Enviroserv at Shongweni.

Technically Durban only has 4 operational landfills taking in some 1,4m tons of waste. In the medium term Mariannhill will close and be replaced by a new site also at Shongweni (probably around 2018/2019). DSW is looking to introduce waste to energy projects (i.e. converting waste directly to energy). DSW have also investigated if building rubble can be used more effectively, but neither of these projects are a reality yet.

2.9.4 Electricity

EThekwini Electricity (EE) purchases from Eskom, the national generator and transmitter of electricity, with six infeed points viz. Klaarwater, Ottawa, Durban North, Durban South, Lotus Park and Kingsburgh. Electricity is purchased at 275 kV and 132 kV at these points and are transformed and transmitted to end customers at voltages of 132 kV, 33 kV, 11 kV, 6.6 kV, 400/230 V.

The bulk of electricity in South Africa is produced from coal, with generating stations situated in Mpumalanga, Limpopo and Gauteng. Electricity is generated at the City's landfill sites at Bisassar Road (6 MW) and Mariannhill (1 MW). 500 kW of electricity will be generated through photovoltaic cells on the roofs of several municipal buildings towards the end of the year. EE's electricity demand is presently 1.67 GW. Currently there is a constraint on Eskom's generation and this has led to load-shedding. EE's customers' experience load-shedding in blocks of 2 hours.

At present new electricity generating capacity is being built through the REIPPP programme and two large coal fired power stations. Through the former, several windfarms and large solar projects have been completed and are planned or under construction. These renewable energy projects are contributing to the national grid and have reduced the number of load shedding events. The first of 12 blocks of the 2 new coal fired power stations has been completed in 2015 and is supplying the national grids. Customers are advised to incorporate energy efficiency within their development.

EE's electrical networks have sufficient bulk capacity, with localized constraints in the Westmead, Springfield and Assagay/Shongweni areas. Plans are in place to rectify these. However, the process is quite elaborate and this constraint will remain a challenge until 2019 for Westmead and 2023 for the Shongweni and Assagay areas.

The electrical master plan for eThekwini was completed in 2011. This study included the long-term demand and energy forecast and the associated financial cash flow requirements to support the infrastructure strengthening and renewal. This study focuses on the eThekwini area of supply within the eThekwini municipal boundary with the objective of the study being to provide eThekwini Municipality a clear view and plan to develop the electrical infrastructure to support the envisaged future demand. The 20 year load forecasts are currently being revised and will then be used to update the current masterplan, an exercise that will be completed by 2016.

Load Forecast

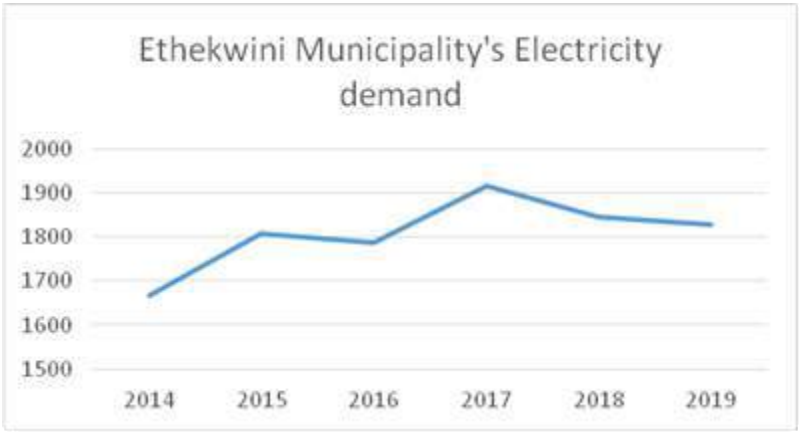


Figure 62: The Five Year Demand Forecast

Existing electrical networks are indicated in the map below:

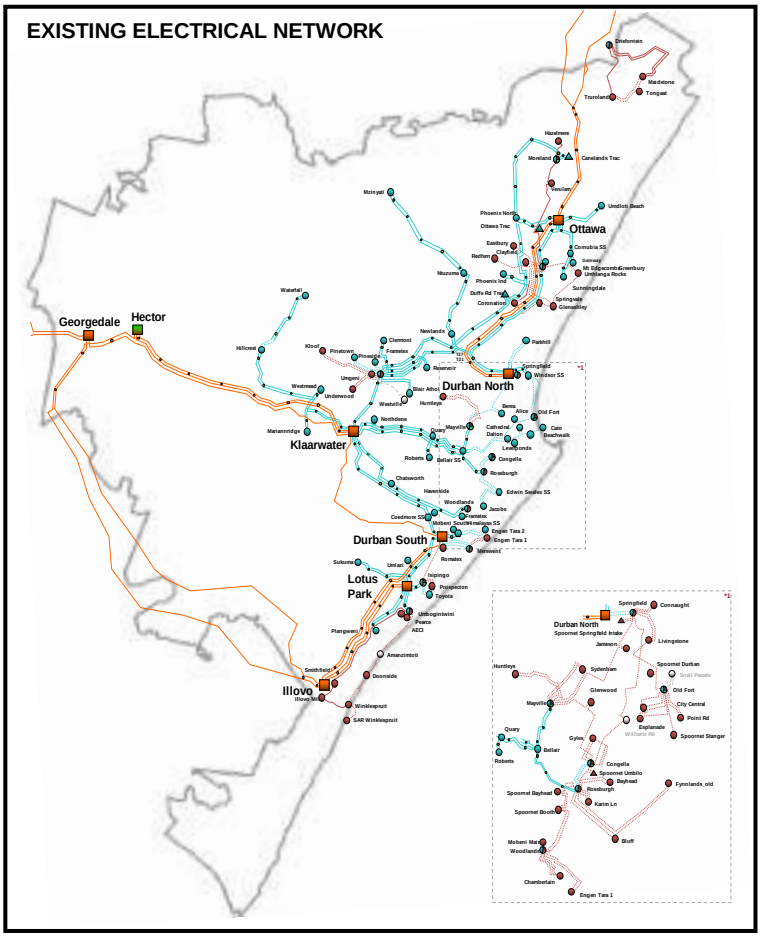


Figure 63: Existing Electrical Networks

Proposed Network (Y2029). The map below indicates the future expansion plans:

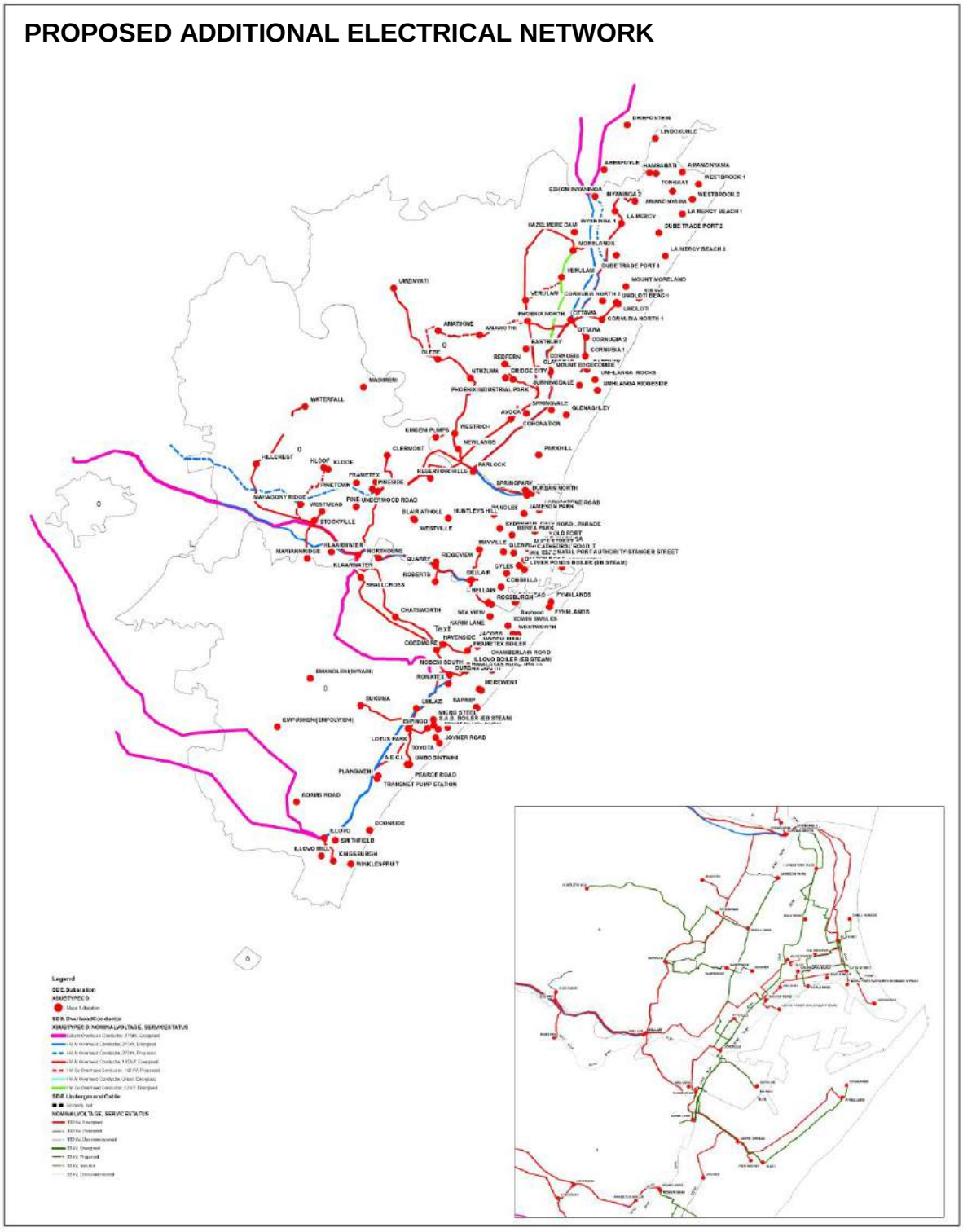


Figure 64: Proposed Electricity Network

2.9.5 Combined Infrastructure Backlogs

The provision of acceptable basic services is a critical element in the national developmental agenda. Water, electricity, sanitation, waste removal and social amenities are key critical services which have been identified by communities that are required to meet their basic needs. Limited funding and exponential growth in the Municipality has increased the levels of backlogs. The current existing backlogs within the Municipality and as contained in the IDP are shown are summarised in table 12 below:

Table 7: Utilities and Services

Basic Service	Existing Backlog (Households) as at 30 June 2011	Timeframe to address based on current funding/ delivery levels
Water	74481	37 years
Sanitation	231387	14 years
Electricity	323000	32 years
Refuse removal	0	0 years[13]
Roads	1 136 kms	103years
Water	74481	37 years

The following map highlights the various service backlogs within the Municipality:

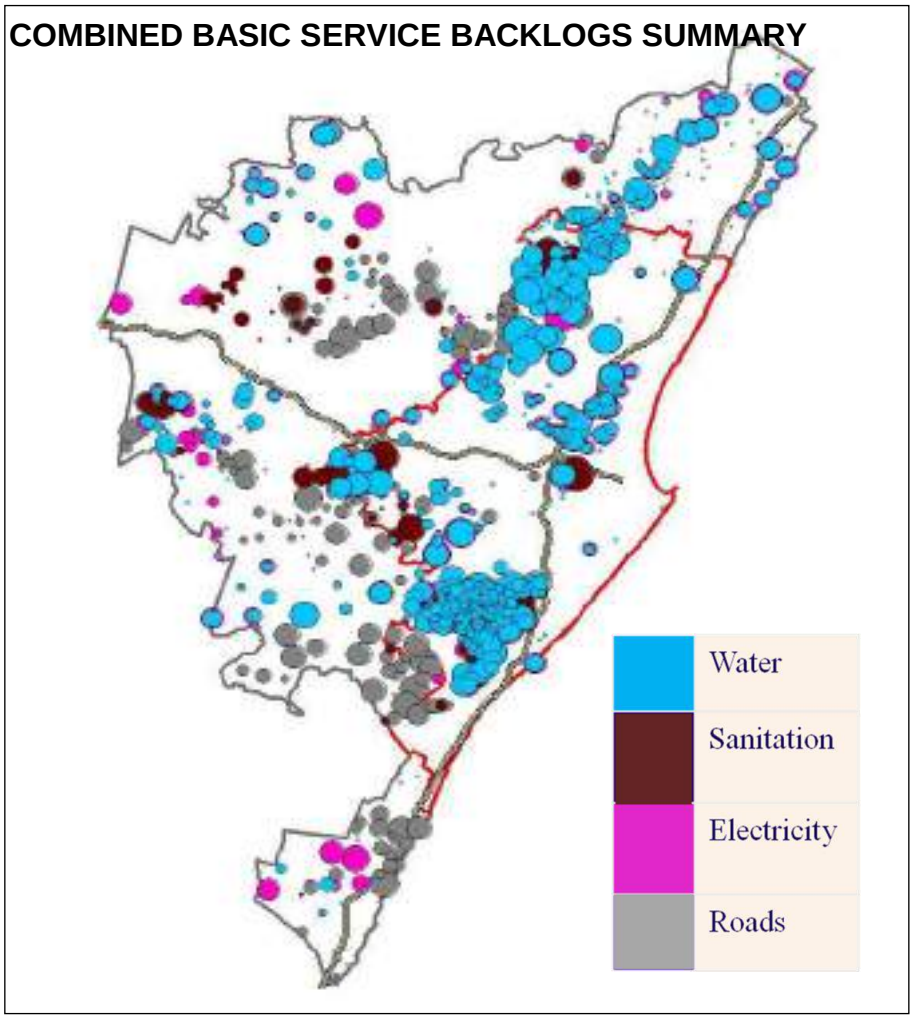


Figure 65: Infrastructure (combined) Services Backlogs

[13]History has shown that this backlog grows every year as new needs are uncovered through modelling of the network as well as new backlogs arising due to storm events.

Vast strides have been made by the Municipality to address the service delivery backlogs and specific strategies have also been put in place to deal with the existing backlogs. The achievements to date include:

- 15 000 new customers having access to electricity each year;
- 852 000 customers having access to water;
- Desludging of 30 000 VIP pit latrines;
- 100% refuse removal coverage;
- 33 pedestrian bridges and 320kms of sidewalks constructed

The eThekwini Municipality is committed to ensuring that all backlogs in the provision of infrastructure are removed and as such has embarked on a Municipal Infrastructure Investment Framework for the Municipality. In line with the Investment Framework, the EMA can make best use of existing resources and infrastructure can be achieved by building upon existing concentrations of activities and existing infrastructure.

A number of water plans have been produced by the eThekwini Water Service (EWS) to address the backlogs in water supply and to meet future demand.
These include:

- A pre-feasibility study to determine potential of hydro-turbine projects in Hillcrest, Wyebank Road and Inanda. The estimated potential is 9mW and is anticipated that they will be commissioned in 2013.

 There are plans in place for EWS to generate power, investigation and feasibility has been done on mini-hydro power stations on the Western Aqueduct that will initially produce 2MegWattHr and increase to 6MegWattHr when the full capacity of the pipeline is realized. There is also a pilot project looking at mini-hydro and pico power stations located at the inlets of our reservoirs.

- Mini-turbines at a water reservoir. Total generation capacity is 600-700kW and they have a potential to be replicated at other Reservoirs.
 There is a pilot project where we will be installing 2 pico-power stations producing 100kiloWattHr.
 There is also a feasibility study being conducted looking at potential hydropower stations throughout the city.

Investigation of the potential of pico-turbines on the water reticulation system down-stream of water reservoirs:

- Pre-feasibility study of a large scale desalination plant with a projected capacity of 450Ml/day. This would result in the availability of a new water source but it is recognized to be energy-intensive.
 UW has carried out a feasibility on two desalination plants; one in the north at La Mercy Beach and one in the south at Illovo. Both these plants will have a capacity of 150ML. A 1ML trial plant

will be installed at Scottsburg to understand and test the water for its characteristics and to look at different methods of processing desalinated water.

- Feasibility of recycling domestic waste-water to potable drinking standard.
 EWS has carried out a feasibility study for reuse of water and has started the Environmental Impact Assessment process but this was brought to a halt due to an objection of 5000 signatories from the community. We are still await approval from city council to proceed with the project.

- Water recycling for industrial use.
 EWS has a 45ML plant in the southern basin servicing different industries. This plant is operated and maintained by a private public partnership.

The status of the projects Umgeni Water is implementing to ensure assurance of water supply for eThekwini Municipality is summarised in Table 13 below.

Table 8: Status of Umgeni Water Projects

SERVICE DELIVERY PLANS (CATALYTIC PROJECTS)	Progress to Date	BUDGET	LOCALITY
Upgrade of Hazelmere System Upgrade the Hazelmere System to meet the growing demands in the northern area of eThekwini Municipality, southern region of Ndwedwe Municipality and KwaDukuza Municipality. Expected Outcomes: New 700mm diameter Hazelmere to Bifurcation Pipeline (capacity = 67Ml/day); New Hazelmere Pump Station (capacity = 67Ml/day); Upgrade of the Hazelmere WTP from 45Ml/day to 75Ml/day; New 700mm diameter raw water pipeline (capacity = 50Ml/day).	Hazelmere WTP: Upgrade - 90% complete. Hazelmere WTP Pump Station Upgrade - 84% complete. Anticipated completion is December 2014.	Total Project Cost: R248,615,000 (subject to review). Budget (subject to review): 2014/2015 - R39,095,000 2015/2016 - R6,169,000	Wards 58, 60 and 61 in eThekwini Municipality
Maphephethwa WTP Upgrade Increase the capacity of the WTP from 2.7Ml/day to 5Ml/day to meet the increase in demand.	Project in snag-list. Anticipated completion is March 2015.	Total Project Cost: R56,000,000 (subject to review).	Ward 2 of eThekwini Municipality.

SERVICE DELIVERY PLANS (CATALYTIC PROJECTS)	Progress to Date	BUDGET	LOCALITY
The uMkhomazi Water Supply Project Current water demand from the Mgeni System has already exceeded the 99% assurance of supply level that will be achieved with the commissioning of the MMTS-2. Further augmentation of the Mgeni System is therefore already required. Water resource development on the uMkhomazi River has been identified as the next likely major project to secure long-term water resources for the Umgungundlovu and eThekwini municipal areas. The purpose is therefore to augment the water resources.	Detailed Feasibility Studies are currently being conducted on the various components of the scheme. The project is divided into three components: - Module 1: Technical Feasibility Study: Raw Water (Appointment by Department of Water Affairs); - Module 2: Environmental Impact Assessment (Joint appointment by Department of Water Affairs and Umgeni Water) - Module 3: Technical Feasibility Study: Potable Water (Appointment of PSP by Umgeni Water) DWA has recently initiated a detailed feasibility investigation of the water resource components of this scheme (Module 1). Umgeni Water has initiated a detailed feasibility level investigation of potable water component (Module 3). The draft feasibility report is anticipated to be completed by end Nov 14. The earliest possible commissioning for Phase 1 is 2023.	Total Project Cost for Infrastructure Component: R2,703,707,000 (subject to review). Budget (subject to review): 2014/2015 - R299,000 2018/2019 - R20,000,000 Cashflows Beyond 5 Years 2018/2019 - 2041/2042 - R2,680,000,000	Ingwe, Richmond, Mkhambathini and Impendle Municipalities. The beneficiary is eThekwini Municipality.
'251 Raw Water Pipeline: Midmar Dam to Midmar WTP The current raw water pipeline is the only raw water supply into the Midmar WTP and this therefore is a risk to the entire region. The installation of a second raw water pipeline will mitigate this risk.	Award of tender is anticipated to occur in February 2015. Anticipated date of completion is April 2016.	Total Project Cost: R90,132,000 (subject to review). Budget (subject to review): 2013/2014 – R1,200,000 2014/2015 – R43,555,000 2015/2016 – R35,245,000 2016/2017 – R10,000,000	Ward 12, uMngeni Local Municipality but raw water into the regional WTP therefore entire PMB-Durban region benefits.
Midmar Water Treatment Plant Upgrade To upgrade the current WTP to meet increasing demands and to match the available water resources once MMTS-2 is commissioned.	Tender in preparation. Anticipated date of completion is March 2017.	Total Project Cost: R245,001,000 (subject to review). Budget (subject to review): 2013/2014 – R2,868,000 2014/2015 – R21,271,000 2015/2016 – R80,000,000 2016/2017 – R81,661,000 2017/2018 – R59,000,000	Ward 12, uMngeni Local Municipality but regional WTP therefore entire PMB-Durban region benefits.

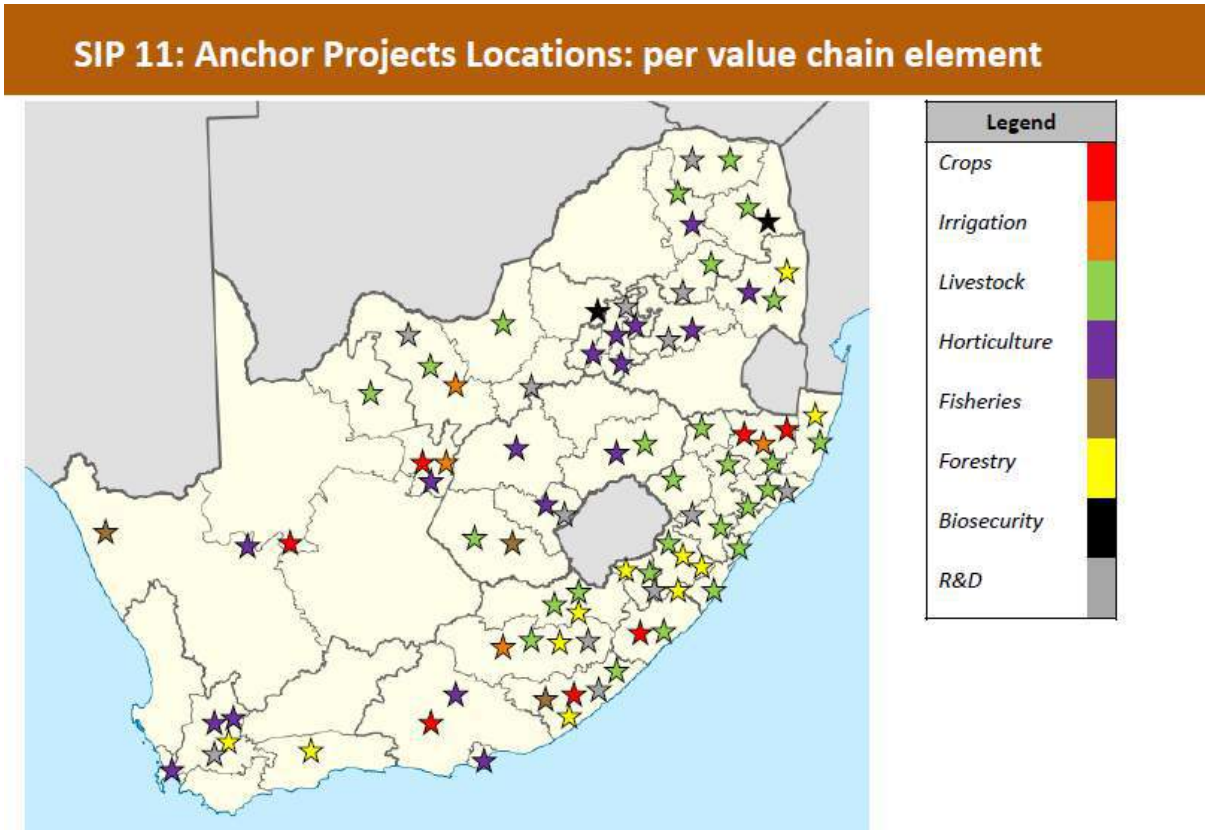
SERVICE DELIVERY PLANS (CATALYTIC PROJECTS)	Progress to Date	BUDGET	LOCALITY
'61 Pipeline: Richmond Off-Take to Umlaas Road Augment the existing pipeline to meet growing demands in the Outer West area of eThekwini Municipality and to meet the future demands of the Western Aqueduct pipeline that is currently being constructed.	Project completed. Preparing for commissioning.	Total Project Cost: R165,890,000 (subject to review). Budget (subject to review): 2013/2014 – R43,324,000 2014/2015 – R15,000,000	Wards 18, 24 and 37 in The Msunduzi Municipality and Ward 3 in the Mkhambathini Municipality (regional link and therefore beneficiaries are the greater PMB-Durban region).
Nungwane Raw Water Aqueduct Replace the existing 450 mm diameter Nungwane Raw Water Pipeline, which supplies Amanzimtoti WTP with raw water, as it is in a poor condition due to the corrosive action by sulphur-reducing bacteria.	Tender anticipated to go out in January 2015. Anticipated completion is May 2016.	Total Project Cost: R77,741,000 (subject to review) Budget (subject to review): 2014/2015 – R15,206,000 2015/2016 – R29,600,000 2016/2017 – R30,000,000	Wards 67, 96 and 98 in eThekwini Municipality. Ward 1 of Vulamehlo Municipality.
Quarry Reservoir Upgrade Once the SCP-2a is commissioned, there will be insufficient storage at Quarry Reservoir. When the existing 7.5 Ml reservoir was constructed, provision was made to construct an additional 7.5 Ml Section attached to the one wall of the existing reservoir. This additional 7.5 Ml reservoir is now recommended to be constructed.	The construction is 100% complete. Hand-over occurred on 27 Oct 2014.	Total Project Cost: R15,899000 (subject to review). Budget (subject to review): 2013/2014 – R13,849	Ward 99 in eThekwini Municipality.
Lower Mkomazi Bulk Water Supply Scheme To provide an assured supply of water to meet the growing water demands in the area.	This project has been initiated with the Inception Meeting held in August 2014. The project is in the detailed feasibility phase. Anticipated completion of construction is March 2022.	Total Project Cost: R796,000,000 (subject to review). Budget (subject to review): 2014/2015 - R2,500,000 2015/2016 - R5,000,000 2016/2017 - R10,000,000 2017/2018 - R25,000,000 2018/2019 - R40,000,000	Wards 4 and 6 in Vulamehlo Municipality. Ward 99 in eThekwini Municipality.

2.10 Agriculture

The National Department of Agriculture, Forestry and Fisheries (DAFF) together with the Provincial Department of Agriculture and Environmental Affairs (KZN DAEA) are critically concerned about the food security challenge threatening South Africa as well as the drastic decrease of available land for agriculture. This is as a result of climate change, poor management of agricultural land, urbanisation and pressure for development of non-agricultural land uses amongst others. Only 12.2 million hectares of South African land is currently under cultivation to support population growth estimated to be 52 million people in the country. This translates to only 0.23ha of agricultural land per person, which is not adequate to provide for a healthy livelihood and sustain the nation. The development pressures on agricultural land are intensifying the problem.

Strategic Integrated Project (SIP) 11 is one of the eighteen flagship infrastructure projects, managed by the Presidential Infrastructure Coordinating Commission (PICC). It is a response to the national development goal of an Integrated and Inclusive rural economy. The main objective of the SIP 11 is to improve investment in agricultural and rural infrastructure that will support expansion of production and employment creation, small-scale farming and rural development, including facilities for storage; transport linkages to main networks; fencing of farms, irrigation schemes, improved Research and Development on rural issues (including expansion of agricultural colleges), processing facilities, aquaculture incubation schemes and rural tourism infrastructure. Focus is on the eight different value areas, namely Crops, Irrigation, Livestock, Horticulture, Fisheries, Forestry, Biosecurity and Research and Development. SIP 11 focuses on maximising the use of communal land and productivity of land reform projects; Expanding irrigated agriculture and support for agricultural sectors and regions with high productive potential

The map below shows SIP 11 projects throughout the country.



Source: ***http://pmg-assets.s3-website-eu-west-1.amazonaws.com/141021sip_11.pdf***
Figure 66: SIP11 - Anchor Projects Locations: per value chain element

2.10.1 State of Agriculture in KwaZulu-Natal

Agriculture is one of the major economic sectors in the KZN province. The KwaZulu-Natal province has exported 58% of agricultural products outside the KZN province via the Durban port, of which citrus fruit was the largest export. The KZN DAEA has acknowledged that agriculture is providing job opportunities, a source of income and sustains a number of households in KZN especially in rural

municipalities. About 2.694 million tons of grain was imported in 2014; about 812% of these went through KZN; and all KZN exports and imports are taking place in the eThekwini Municipality.

The KZN DAEA has now prioritised systems to closely manage and preserve agriculture land in the province through policy frameworks. KZN DAEA introduced different strategies and interventions to effectively manage the high agricultural potential land. Both KZN DAEA and National DAFF resolved that this cannot be viable if it is done in isolation, hence there is a need to work through other government departments particularly the Department of Cooperative Governance and Traditional Affairs (COGTA) as well as local governments. In the MEC COGTA comments on the SDF, KZN COGTA has now put the need for the development of an Agricultural Sector Plan as a requirement to all municipalities. This plan is required to be submitted as part of the IDP and SDF. . Both DAEA and DAFF further requires all municipal SDF's to capture 'agriculture' as a land use, identify land with agriculture potential as per the Agricultural Land Categories data set as well as prepare a municipal agricultural plan to manage and develop the agricultural sector. This approach has directly put agriculture under the municipal planning domain and there is an expectation that the strategy will cascade to all level of plans prepared by the municipal planning departments from spatial plans to land use schemes.

The KZN DAEA has developed a number of tools and strategies in alignment with policies (Act 70 of 1970 and PGDS) to ensure compliance of municipalities and developers to retain and protect high agriculture potential areas within their areas of jurisdiction, these include:

a) **KwaZulu-Natal Agricultural Land Potential Categories Demarcation**, designed to analyse and define agricultural potential of each area in KZN to guide the local government or developers in areas where act 70 of 70 could be uplifted for non-agricultural use and the areas that need to be retained (no go areas). It also define the agricultural potential of a specific area, from an arable as well as a grazing perspective

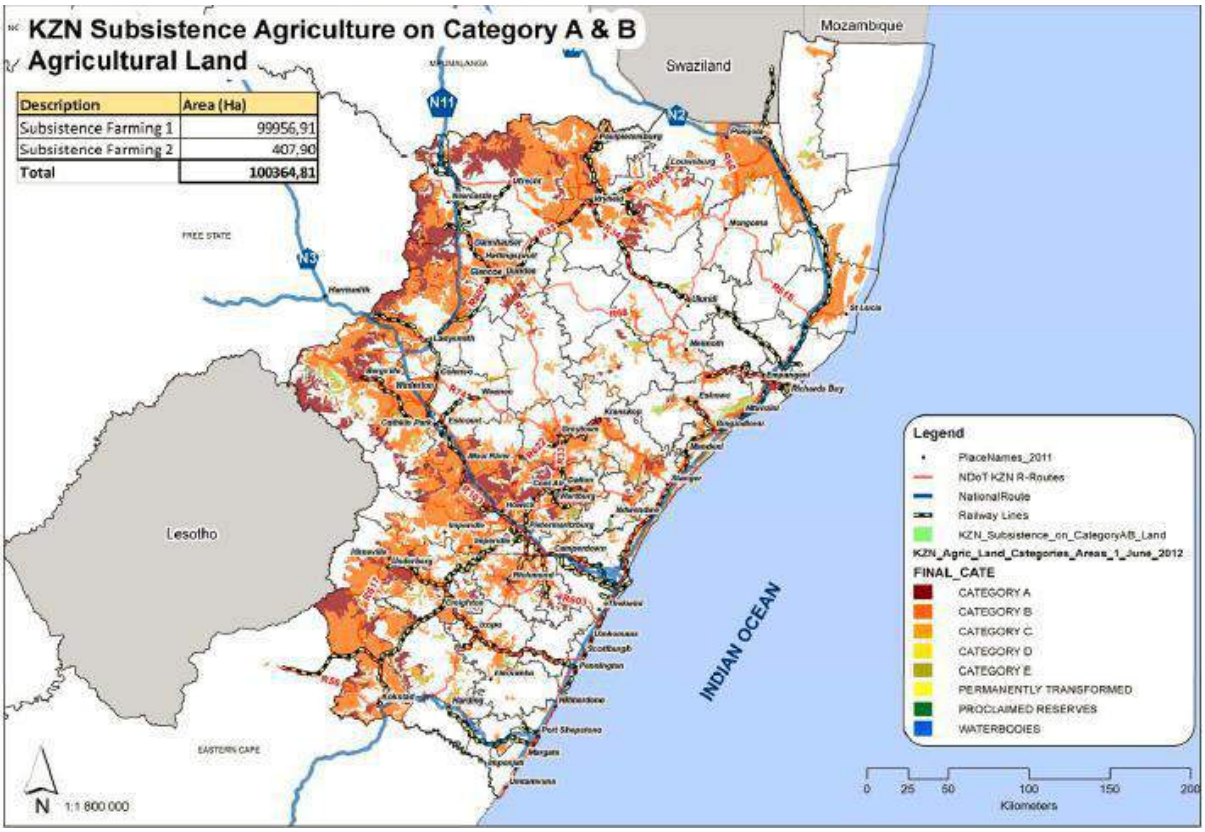


Figure 67: KZN Subsistence Agriculture on Category A and B Agricultural Land

b) **Agro-Ecological Zone (AEZ)**, defined in terms of grouping similar characteristics in relation to land suitability, production potential as well as environmental impact, climate, landform and soils and/or land cover, specific range of potential and constraints for land use.

c) **Agricultural Protected Area** (APA), defines the potential agricultural categories across varying and diverse natural resources rather than for individual land parcels in isolation. This is aimed at protecting and managing a larger unit or an area across both provincial and national levels. APA recognises the value of agricultural land as an economic and natural asset, and thus should be supported through necessary infrastructure and development plans and relevant legislation

2.10.2 State of Agriculture in the eThekwini Municipality

EThekwini like any municipality within the KZN province has a number of areas with high agricultural potential. However there are few agricultural activities that are occurring in eThekwini Municipality. This agricultural land categories is illustrated in the following maps received from KZN DAEA:

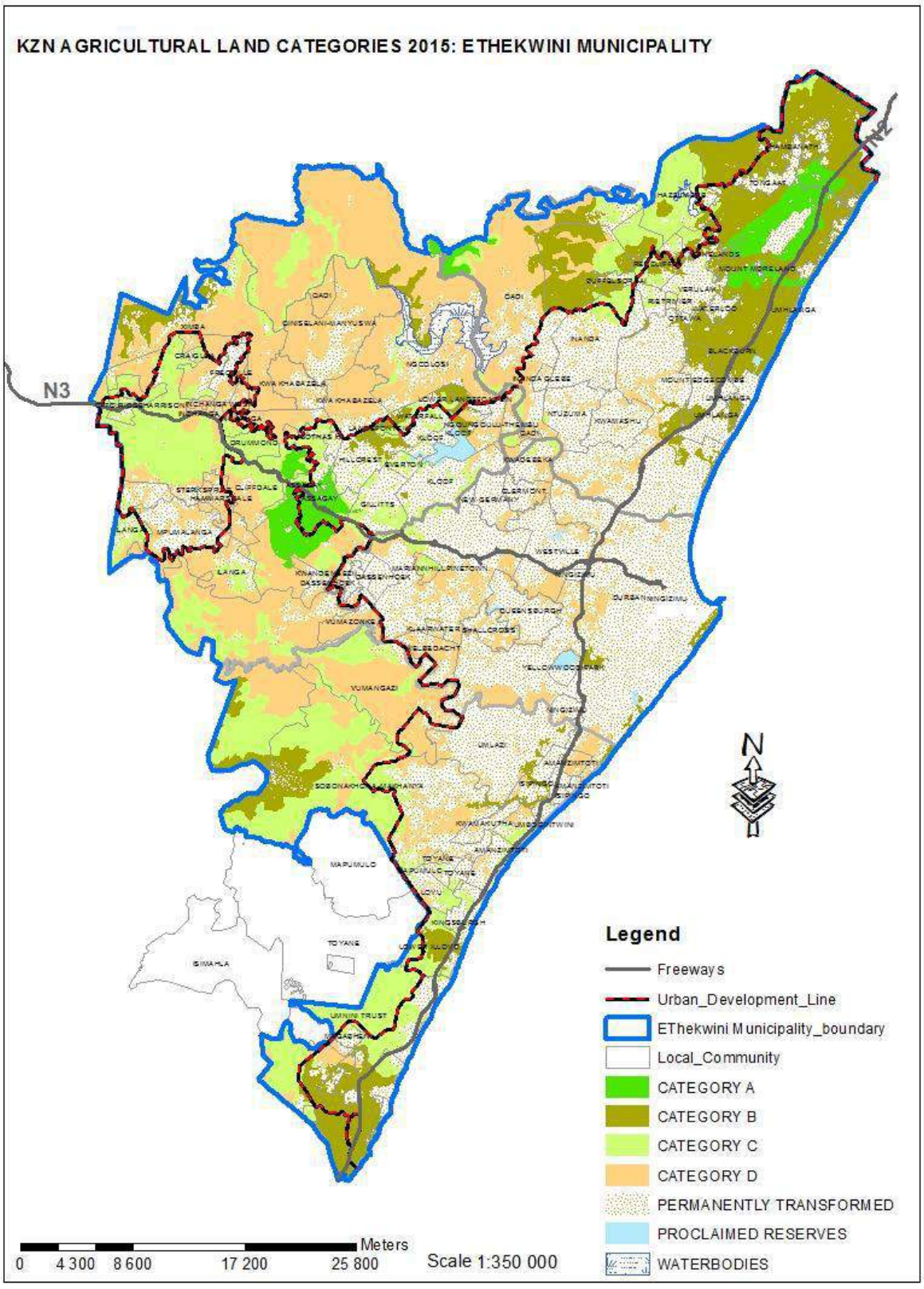


Figure 68: EThekwini Agricultural land categories 2015

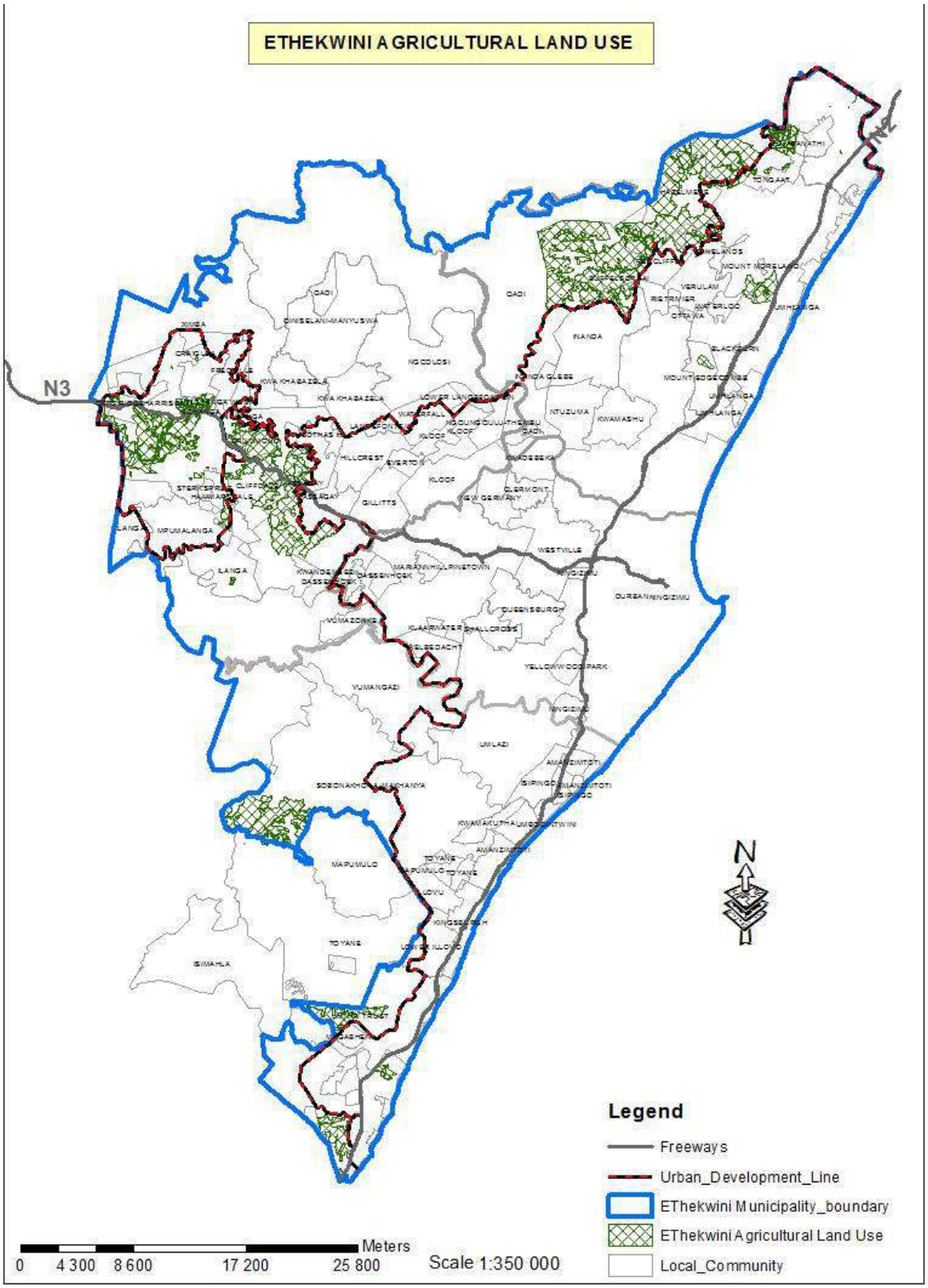


Figure 69: EThekwini Proposed Agricultural Land Use

The eThekwini Municipality has a significant amount of land that falls within the high potential agricultural land categories identified by KZN DAEA and these areas are under pressure for development. Figure 57 above shows the areas to be retained for commercial agricultural land use, in addition to the existing rural or Ingonyama Trust Land Areas, which is minimal in comparison to the

areas identified as suitable for agriculture by KZN DAEA. Figure 58 below shows the proposed Agricultural Land Use against the KZN DAEA Agricultural Land Categories.

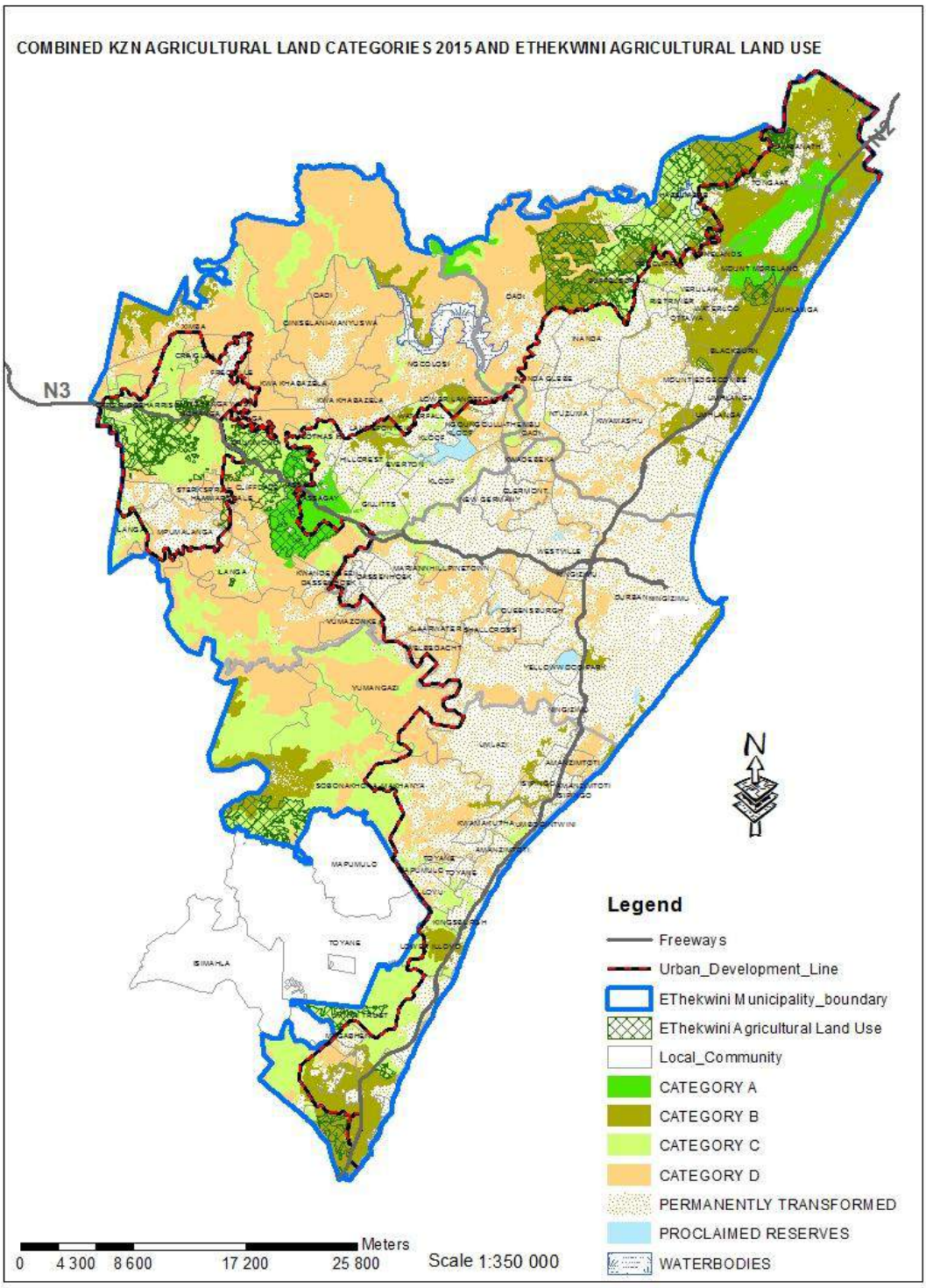


Figure 70: EThekwini Agricultural Land Categories and Land Use

It is evident that about 68% of the municipality is already transformed and that large areas of existing and high potential agricultural land are also proposed to be developed for non-agricultural uses. One of the largest areas to be affected by development is the Dube Trade Port and surrounding areas

identified by all spheres of government as the new “Aerotropolis” (which extends into neighbouring municipalities and links up with Richards Bay). As a major investment opportunity for the country, a significant amount of resources have already been directed towards the establishment and viable functioning of this economic initiative. The potential conflict between the policies of different government departments and its implications for development / food security in the metropolitan area needs to be urgently resolved. Currently it is a challenge for both municipality and DAEA because the municipality wants to release this area amongst others from Act 70 0f 1970, while the DAEA does not want to give approval for the development of areas falling within the areas designated as having prime agricultural potential, To date some approvals have been granted in terms of Act 70 of 70 for the redevelopment of a number of Tongaat Hulett Land Holdings as shown in Figure 71 below but these are occurring on an application by application basis.

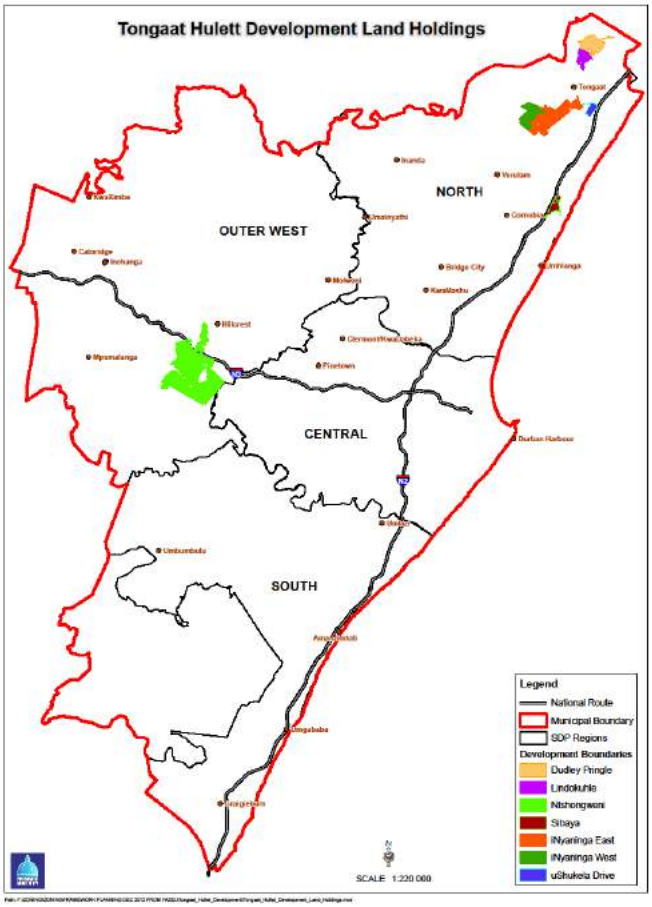


Figure 71: Tongaat Hullett Development Land Holdings

It is clear that there is no alignment between eThekwini Municipality SDF with the DAEA agriculture land categories and the municipality has committed resources for development in areas identified as high agriculture potential. The eThekwini Municipality and DAEA are engaging on an on-going basis in trying to resolve and obtain alignment of the SDF Intentions with DAEA intentions. To this end the IDP, Planning, Economic, Parks, Leisure and Cemeteries Departments of the eThekwini Municipality met with KZN DAEA officials in January 2016 to clarify DAEA requirements. Subsequent meetings

have been held with the relevant municipal sector departments and senior management in the municipality to clarify the city's role and to determine the appropriate institutional arrangements to address these concerns, it being noted that there are already a number of municipal departments currently dealing with different aspects of agriculture (from food gardens to commercial agriculture initiatives) and there is a need to consolidate and integrate these initiatives. The Municipality acknowledges the need to coordinate these initiatives and develop an Agricultural Sector Plan in conjunction with the KZN DAEA and steps are being taken to move forward in this regard.

Furthermore, the protection of high value agricultural land must support the municipality in realising the SDF intentions, namely:

a) To realize its full potential as an economic and industrial hub of KZN and South Africa
b) To provide job opportunities to alleviate poverty in KZN as well as accommodate the increasing demand for housing and higher order social facilities' arising from in-migration and population growth
c) To demonstrably address food security, grow the economy and increase our contribution to the GDP. For DAEA / DAFF to provide the necessary resources and support to protect agricultural areas. For example the DAEA indicates that grazing land and agricultural land in general needs to be protected by the municipalities but does not provide the resources to undertake land banking for agriculture protected areas (APA).

Although a large percentage of agricultural land has already been lost to non-agricultural land uses, the eThekwini municipality does provide for agricultural activities such as grazing land through commercial agriculture and has introduced different means/strategies and systems to deal with climate change, urbanisation and food security challenges. It is noted that an internationally recognised food security programme (UMbumbulu Agricultural Hub) resides within the Municipality as a viable strategy for urban agriculture. Further food security programmes and urban agriculture should be explored.

2.10.3 EThekwini Municipality's approach to Agriculture

The greatest challenge facing communities in the municipal area is poverty and food insecurity. Agriculture and food security is considered a national and provincial priority. The Municipality is becoming more urbanised and the reliance on this primary sector is decreasing. EThekwini's agricultural potential is being reduced by the rate of urbanization, which restricts expansion. It is anticipated that climate change will have a significant impact on the weather variability and agricultural production, which will in turn impact on the most vulnerable rural communities.

In the eThekwini Municipality, the greatest and available high potential agricultural land exists in the Outer West mainly within the rural stretch from Assagay to Hammarsdale which includes areas such as parts of Shongweni, Summerveld, Alverstone, Cliffdale, Pinetown Rural and Monteseel. Currently 36% of the Northern area is under agriculture, of which 31% is sugar cane. Sugar cane occurs

predominately within the coastal plain and in Buffelsdraai and mixed agriculture around Hazelmere Dam. High value agricultural land is located at Cornubia, west of the R102, between Tongaat and Verulam and within the Buffelsdraai area. Other good agricultural opportunities exist in the Southern Municipal Planning Region within parts of Inwabi, Magabheni/ Umnini and Amahlongwa Rural area.

The protection of agricultural and scenic land abutting the urban areas adjacent to the rural landscape is particularly important. This is often the most valuable land from an agricultural or tourism point of view because of its close proximity to an urban area. It should not be disturbed by piece-meal or leap-frog urban development. Where possible, sufficient arable land within the municipality should be reserved for agriculture in the event of an energy or transport crisis, as well as to promote local economic development and land reform.

Through initiatives such as shifting to new crops which are more resilient to climatic conditions and can meet the demands of an ever growing population, maintaining agricultural land so as to keep it arable, introducing mitigation methods to fight climate change, promotion of sustainable agricultural production, ensuring reasonable food costing as well as introducing and managing community gardens, the Municipality could play a major role in ensuring food security.

A multi-pronged approach is necessary to improve the lives of the people. The key challenges faced include land shortages and ability to identify appropriate opportunities for local production of food. The Municipality has initiated a number of programmes to assist in the alleviation of food insecurity. These include the creation of dedicated structures to drive agriculture, aqua and poultry farming; soya bean projects, 20 community support farms; 423 community gardens, mushroom vs hydroponics project, One Home One Garden project, etc. Support in the form of seedlings and compost together with expertise is provided to communities to assist them in ensuring their food security.

In terms of urban and peri-urban agriculture, the Municipality has an Agro-ecology Programme in place which complements other municipal policies which focus on poverty and unemployment. The peri-urban agro-ecology strategy and programmes put in place by the eThekwini Municipality aims at promoting appropriate and sustainable approaches to the way in which agriculture is planned and implemented. Six agricultural support hubs have been established or under development which contain demonstration sites of agro-ecology techniques, a research and development centre on agro-ecology, training sites, a packing and marketing hub and a future seed bank. The hubs are as follows Northdene Agro-ecology research & development Centre, Newlands-Mashu Permaculture Centre, Inchanga, Scorpio Place in Mariannridge, Mariannhill Monastery and Umbumbulu. The programmes primary targets are those with greatest need and where the most impact can be made with limited resources.

There are a number of agri-processing facilities in eThekwini which includes the abattoir at Cato Ridge, the Maidstone Sugar Mill, and the Sappi-Saiccor plant in Umkomaas. The Municipal Fresh

Produce Market is located in Clairwood with Farmers Markets located in Tongaat, Verulam and Isipingo. There are three Agri-Hubs in eThekwini Municipality and these are:

- UmbumbuluAgriHUB (South)
- SterkspruitAgriHUB (Hammersdale/Shongweni)- Outer-west
- TongaatAgriHUB (Hambanathi/Greylands) - North

The following map reflects the eThekwini Agriculture Zonal Budget Gardens:

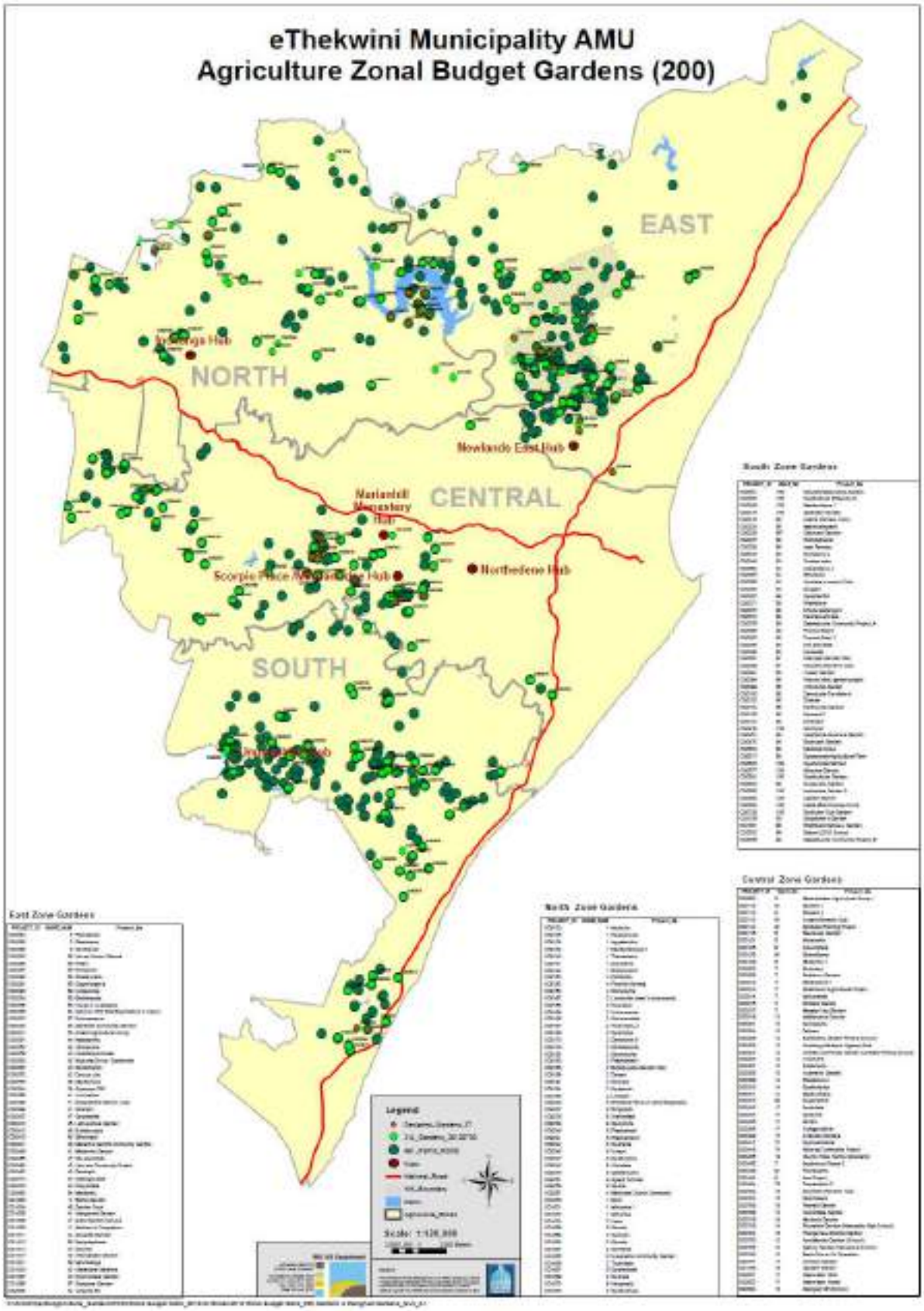


Figure 72: eThekwini Agriculture Zonal Budget Gardens

2.11 Disaster Management

The eThekwini Municipality is a coastal municipality that accommodates millions of people, includes a port, airport and a major petro-chemical industry that has influence over the rest of the country and southern Africa, should be prepared for any disaster that should arise. In terms of national legislation, the municipality has started planning for the event of disaster by preparing a Disaster Management Plan and is currently undertaking a High Level Disaster Risk Assessment which are hereunder discussed.

2.11.1 Municipal Disaster Management Plan

Disaster Management is a continuous and integrated multi-sectoral and multi-disciplinary process of planning and implementation of measures aimed at disaster prevention namely; mitigation, preparedness, response, recovery and rehabilitation as defined in Section 1 of the Disaster Management Act 57 of 2002.

The Disaster Management Act requires the municipality to take the following actions:

- Prepare a disaster management plan for the area within its boundary taking into account the existing circumstances;
- Co-ordinate and align the implementation of its plan with those of other organs of state and institutional role players; and
- Regularly review and update its plan. (Section 48 of the Disaster Management Act)

The eThekwini Metropolitan Council Disaster Management Plan has been prepared by the Disaster Management Centre in terms of the Disaster Management Act, 57 of 2002. The Plan was approved by Council in August 2013.

A key priority is to ensure the finalization of the Level 2 Disaster Management Plan which is still in the early stages of development. The intention is to finalize this plan in December 2016. The plan will then be approved by the Disaster Management Advisory Forum and ratified by Council.

Disaster Management Plan (August 2013)

The primary focus of the eThekwini Municipal Disaster Management Plan is to confirm the organizational and institutional arrangements to effectively prevent disasters from occurring and to lessen [mitigate] the impact of those hazards that cannot be avoided. It establishes the operational procedures for risk reduction planning as well as emergency procedures to be implemented in the event of a disaster occurring or threatening to occur. The plan is an internal municipal document and essentially serves as the coordination and cooperation mechanism between all the relevant Departments, Units and Clusters of Council.

The purpose of the plan is to outline policy and procedures for both the pro-active disaster prevention and the reactive disaster response and mitigation phases of disaster management. The preventative elements of this plan must be implemented and maintained on a continuous basis. The emergency or re-active elements of the plan will be implemented whenever a major incident or disaster occurs or is threatening to occur.

The plan should:

- Form an integral part of the City IDP enabling risk reduction activities to be incorporated into developmental initiatives
- Anticipate the likely types of disaster that might occur in the City's area and their possible effects
- Identify the communities at risk e.g. informal settlements
- Provide for appropriate prevention risk reduction and mitigation strategies
- Identify and address weaknesses in capacity to deal with possible disasters
- Facilitate maximum emergency preparedness
- Establish the operational concepts & procedures associated with day-to-day operational response to emergency incidents.
- Contain contingency plans and emergency procedures in the event of a disaster, providing for
 - The allocation of responsibilities to the various role players and coordination in the carrying out of those responsibilities;
 - Prompt disaster response and relief;
 - Disaster recovery and rehabilitation focused on risk elimination or mitigation;
 - The procurement of essential goods and services;
 - The establishment of strategic communication links;
 - The dissemination of information.

The plan is reviewed annually. The following institutional arrangements will inform and provide guidance for the updating and review of the Plan.

- Disaster Management Framework
- Disaster Management Advisory Forum and associated Technical Task Teams
- A city wide Risk Assessment (currently underway)

Disaster Management Framework

In compliance with the Act, the eThekwini Municipality has compiled a Disaster Management Framework, as set out below which is consistent with that of National Government. The Framework is based on the nationally accepted four key performance areas (KPA) each of which is underpinned by three "enablers" that facilitate a consistent approach to the function.

Key Performance Indicators

- Integrated institutional capacity for disaster risk management.
- Disaster risk assessment.

- Disaster risk reduction.
- Response and recovery.

Enablers

- Information management and communication.
- Education, training, public awareness and research.
- Funding arrangements for disaster risk management.

In order to reach and maintain appropriate performance levels, various criteria have been identified against which functionality can be measured as indicated in the tables reflected hereunder.

Disaster Management Advisory Forum and Associated Technical Task Teams

The establishment of a Disaster Management Advisory Forum [DMAF] for eThekwini is one of the essential action steps in establishing the foundational institutional arrangements required. The primary purpose of DMAF is to provide a mechanism for relevant internal, external and technical specialist role players to consult one another and co-ordinate their activities with regard to disaster management issues. The DMAF team meets a minimum of four times a year.

Objectives

- Developing the information management and communication systems
- Ensure that all disaster management planning and practice is based on scientifically robust disaster risk assessments;
- Approve the compilation and maintenance of a eThekwini Municipal Corporate Disaster Management Plan, and the review of the plan on an annual basis
- serve as the vehicle through which all role players coordinate their actions
- To ensure that all aspects of disaster management, namely prevention, mitigation, response and recovery are undertaken
- To oversee and review on an annual basis, the Disaster Management Municipal Framework and ensure that it is integrated with the Integrated Development Plan [IDP]
- To co-ordinate the development of disaster management plans by all line function departments
- Establishing task- driven multidisciplinary technical teams composed of representatives from the various disciplines
- Advising and making recommendations on training and public awareness Participating in the review of programmes and policy

Technical Task Teams

There are three technical tasks teams that have been established by DMAF to deal with projects requiring specialists inputs. These teams are;

- City-Wide Risk Assessment Technical Task Team – oversees the risk assessment study

- Municipal Adaptation Planning Technical Task Team – determines how climate change projections would affect communities and individuals within the municipal area.
- South Durban Basin "Off-Site" Technical Task Team – in the event that a major hazard installation suddenly has major impacts on the surrounding communities, it is imperative that appropriate plans are in place to manage an off-site response to ensure the protection of the public and to restore normality as soon as possible.

2.11.2 High Level Disaster Risk Assessment

The Disaster Management Act (Act 57 of 2002) as well as the National Disaster Management Framework (2005), requires that Municipalities conduct disaster risk assessments for their area of jurisdiction.

2.11.2.1 High Level Disaster Risk Assessment

The eThekwini Municipality has appointed consultants to perform a High level Disaster Risk Assessment for the eThekwini Metropolitan Municipality which is currently underway. The content herein, that relates to the High Level Disaster Risk Assessment must therefore be considered as a draft document still to be finalised and ratified by Council.

The main objective of the Disaster Risk Assessment is to provide the eThekwini Municipality with relevant information to enable and support the required disaster risk reduction planning and activities undertaken by the eThekwini Municipality. The required information includes information related to the levels of disaster risks, hazards, vulnerabilities, manageability, and capacities within the area of jurisdiction of the eThekwini Municipality. The deliverables also included suitable ratings, mapping and prioritization of the risks, hazards, vulnerabilities, manageability, and capacities levels for the eThekwini Municipality.

2.11.2.2 Creation of Hazard, Vulnerability, Manageability, Capacity & Risk (HVMCR) Maps and Disaster Risk Profiles

The results from the Disaster Risk Model were used to compile the various Hazard, Vulnerability, Resilience and Risk maps, while information collected from workshop consultations as well as information abstracted from base data sources were used to compile disaster risk profiles for the eThekwini Municipality.

The Disaster Risk Formula:

The Disaster Risk Model is based on a mathematical formula taking into account the various factors that constitute the level of risk, based on specific hazards, in a specific area. The mathematical formula can be illustrated as follows:

$$Risk = \frac{Hazard\ x\ Vulnerability}{Manageability + Capacity}$$

where:

Risk	The probability of harmful consequences or expected losses resulting from the interactions of hazards and vulnerable conditions. Conventionally risk is expressed as follows: Risk (R) = Hazard x Vulnerability. However, the concepts of Manageability and Capacity (combined as Resilience) are also included in the formula.
Hazard	A potentially damaging physical event, phenomenon and/or human activity that may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation.
Vulnerability	The degree to which an individual, a household, a community, an area or a development may be adversely affected by the impact of a hazard. Conditions of vulnerability and susceptibility to the impact of hazards are determined by political, physical, social, economic and environmental factors or processes. *The political aspect of vulnerability is not included in this assessment since it entails a long process of investigating the political climate and culture of different areas within the study area, which is a complete long-term study on its own.*
Manageability	For the purpose of this assessment Manageability will be defined as the combination of all the strengths and resources available within the government departments and line-functions (such as Fire Services, South African Police Service, Department of Health, etc.) that can reduce the level of risk or mitigate the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personnel or collective attributes such as leadership and management.
Capacity	For the purpose of this assessment Capacity will be defined as the combination of all the strengths and resources available within the community or society (including NGOs, CBOs, Faith Based Organizations, etc.) that can reduce the level of risk or the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personnel or collective attributes such as leadership and management.
Resilience	The combined value between the Manageability and Capacity values are referred to as the Resilience value.

In order to present the various Hazard, Vulnerability and Resilience levels spatially, various individual GIS data layers were created. These data layers were used to calculate and spatially represent the risk levels in this study area. This process is represented below:



(Hazard x Vulnerability) ÷ (Manageability + Capacity) = RISK

Figure73: Data Layers to be used in the Disaster Risk Modelling

Hazards Description and Categories:

The National Disaster Management Framework provides a list of hazards to be considered during a disaster risk assessment. The hazard categorization is shown in Table 0-9:

Table 0-9: Classification of Hazards according to the National Disaster Management Framework

Natural hazards	**Examples**
Geological	Landslides, rockslides, liquefaction, subsidence
Biological	Epidemic diseases affecting people or livestock, veld fires, plant infestations
Hydro meteorological	Floods, debris flows, tropical cyclones, storm surges, severe storms, drought, desertification
Technological hazards	Industrial pollution, nuclear activities, toxic waste, dam failure, transport accidents
Environmental hazards and degradation	Land degradation, deforestation, loss of biodiversity

Approach to Hazard Profiling:

For this assessment and related hazard profiling, three approaches were used to compile the hazard profile of the eThekwini Municipality. These approaches were:

- Hazard profiling through individual and workshop consultations and group discussions to collect specialist and indigenous knowledge with regards to hazards in the eThekwini Municipality;
- Desk-top hazard profiling through the use of statistics, reports and base data (where available); and
- GIS Based hazard profiling through the use of GIS base data to identify hazards based on local conditions in the eThekwini Municipality (where available).

The results of these three approaches were compared and are presented in the relevant sections of this report. A ward level indigenous knowledge survey was conducted to be used to verify the findings of the hazard profiling.

Finalizing the Hazard Profile:

Figure 74 is a summary of the process followed during the hazards assessment as part of disaster risk assessments.

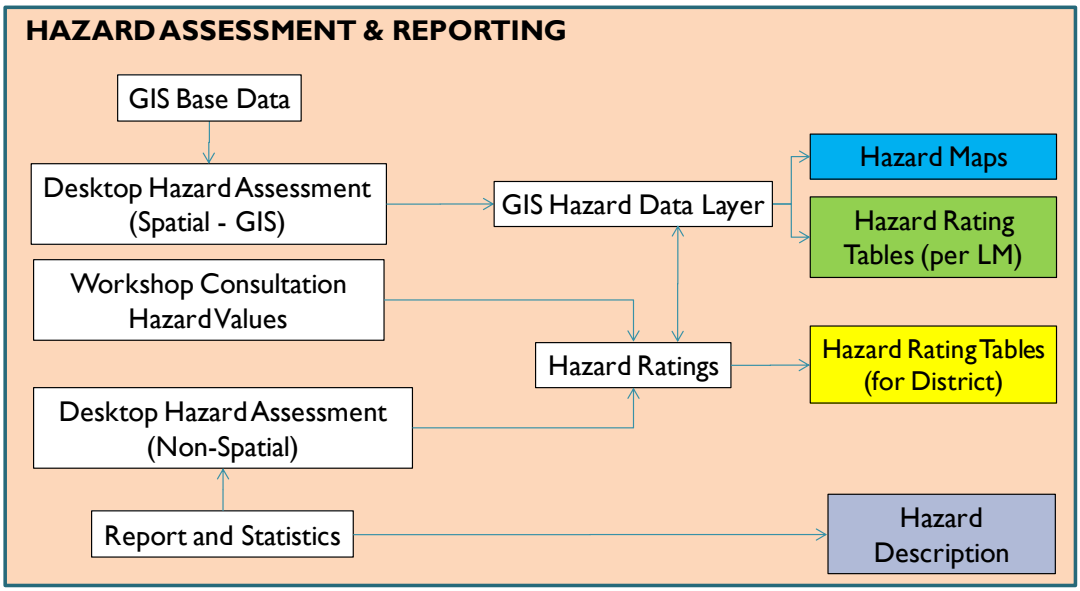


Figure 74: Hazard Assessment and Reporting Approach

The study has identified a number of hazard profiles which are mapped and discussed in the assessment. The hazards discussed broadly falls under the catagories of transport, civil unrest, environmental degradation, disease / health : animal, disease / health : human, fire hazards, floods, geological hazards, hydro-meteorological hazards, hazardous materials, infestations, infrastructure failure, service delivery failure, major event hazards, pollution, structural failure climate change and oceanographic hazards. The Draft hazard profile maps are attached as Annexure 9.

Finalizing the Vulnerability Profile

In the context of this study, vulnerability can be described as the degree to which an individual, a household, a community, an area or a development may be adversely affected by the impact of a hazard. Conditions of vulnerability and susceptibility to the impact of hazards are determined by physical, social, economic and environmental factors or processes.

Vulnerability is dynamic, not static, as the vulnerability of communities change due to improvements or degradation of social, environmental and economic conditions, as well as interventions specifically aimed at reducing vulnerability.

Vulnerability Considerations:

In a developing country such as South Africa, poor people tend to be the most vulnerable to environmental disturbance, because they have fewer resources to help them to cope with disasters. They have low incomes, restricted choices regarding location and employment, are less able to afford food or to save and accumulate assets, and are often powerless Both global and local consequences of environmental damage impact upon poor people.

Physical vulnerability of communities can relate to the type of housing, available infrastructure and the quality of infrastructure. Informal dwellings, or buildings constructed from low quality material can be considered more susceptible to the effects of some hazards. The percentage of formal and informal dwellings within an area can therefore be used as one indicator of the level of vulnerability of an area. The inadequate quantity or quality of drinking water can increase the vulnerability of communities to the effects of certain hazards.

Adequate sanitation is critical to ensure that the appropriate public health conditions are maintained in a community. Inadequate or unsuitable sanitation or disposal of waste can increase the risk of disease. The access of community members to proper sanitation, including toilets, can therefore be used as an indicator of relative vulnerability.

The type of energy available for cooking and lighting can also serve as an indicator of the relative vulnerability of communities. In areas without electricity, community members need to make use of alternative energy sources, such as paraffin, gas or wood. This can have a detrimental effect on the health of community members, and also pose an increase in the fire hazard.

The *social characteristics* of a community can also have an impact on the vulnerability of the community. These characteristics includes, amongst others:

- Limited access to power, structures and resources;
- Lack of local institutions, training and skills; and
- Lack of ethical standards in public life.

Economic characteristics influencing the vulnerability of communities can include aspects such as the levels of unemployment, levels of income and the percentage of economically active individuals.
Additional *environmental characteristics* that can influence the vulnerability of an area are deforestation, rapid urbanization and a decline in soil productivity.

The report lists the following steps that can be taken to decrease vulnerability and reduce disaster risk by increasing resilience;

- Increase the access of vulnerable groups to power structures and resources;
- Challenge any ideology, political system or economic system where it causes or increases vulnerability;
- Development of local institutions, education, training and appropriate skill development opportunities;
- Develop and secure local investment and local markets;
- Improve ethical standards in public life (including crime prevention, safety and security)
- Manage urbanisation;
- Protect natural and forest environments;
- Diversify rural income opportunities; and

- Strengthen livelihoods and increase low income levels.

Figure 75 represents an overview of the process generally followed to conduct the vulnerability assessment as part of a disaster risk assessment.

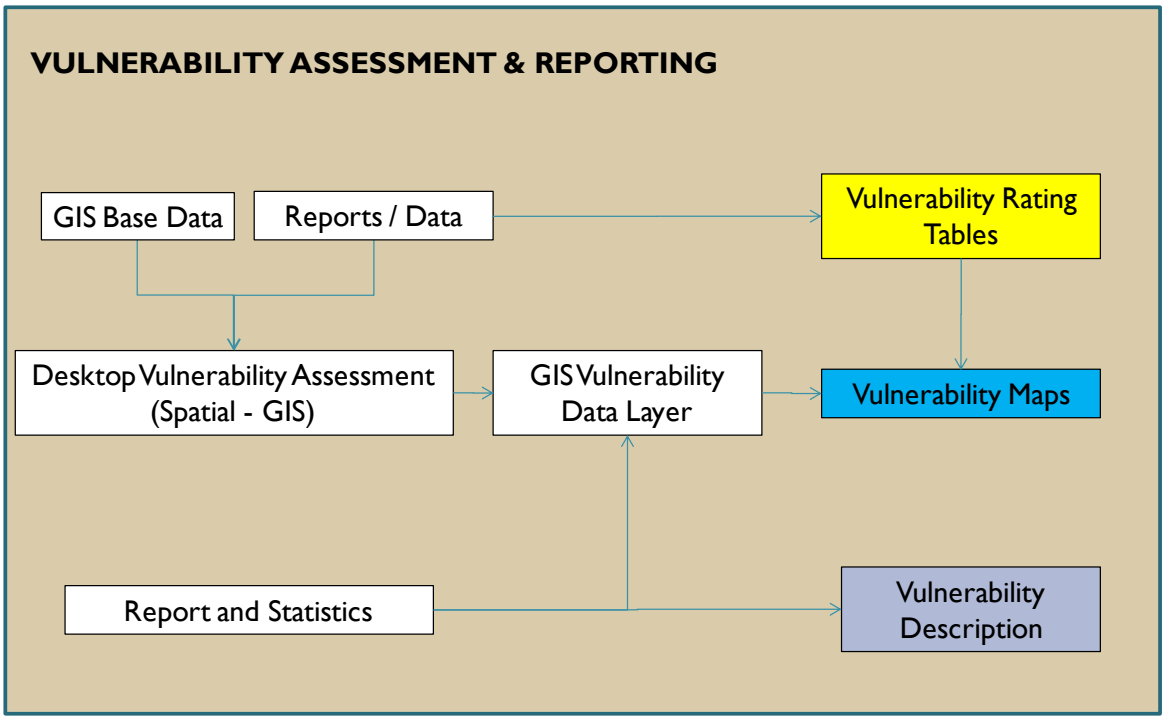


Figure 75: Vulnerability Assessment and Reporting Approach

Vulnerability Mapping

The Vulnerability modelling for the municipality was conducted based on relative vulnerability levels associated with social, structural, economic and environmental vulnerability levels in the eThekwini Municipality.

The different types of vulnerability were then combined using the spatial analyses tool in ArcGIS to produce a combined or total vulnerability map. The results from the resilience mapping indicate that areas of high vulnerability can be found throughout the municipality. Rural and informal areas as well as the major commercial and industrial areas seem to have the highest combined vulnerability ratings.

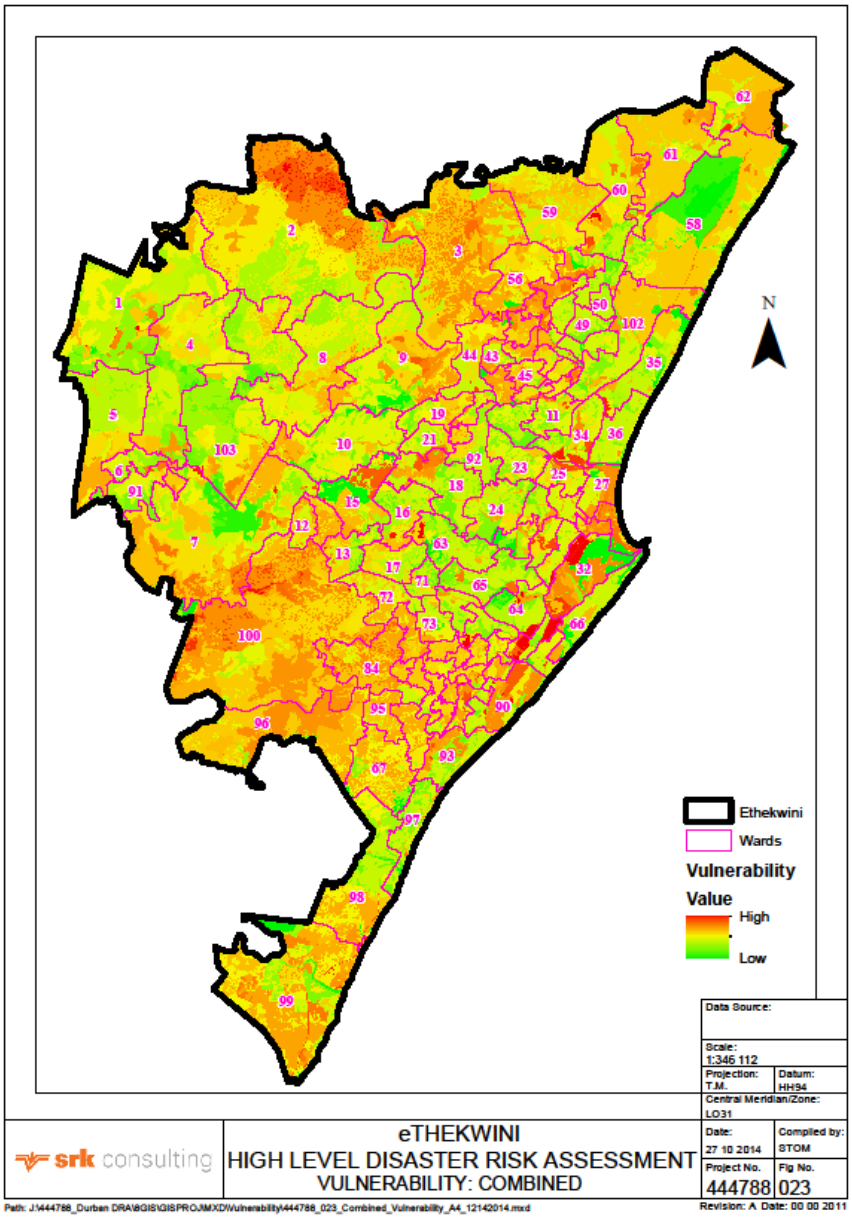


Figure 76: Ethekwini High Level Disaster Risk Assessment Vulnerability: Combined

Finalizing the Resilience Profile

The resilience profile (consisting of Capacity & Manageability data) for the eThekwini Municipality consisted of two deliverables:

- The first deliverable is the description of the various resilience role players as contained in Sections; and
- The second deliverable is the Resilience map

These components should not be considered as stand-alone resilience profiles of the eThekwini Municipality, but should be considered together in order to analyse and understand the resilience profile of the eThekwini Municipality. An overview of the process followed to compile the resilience profile is shown in Figure 77.

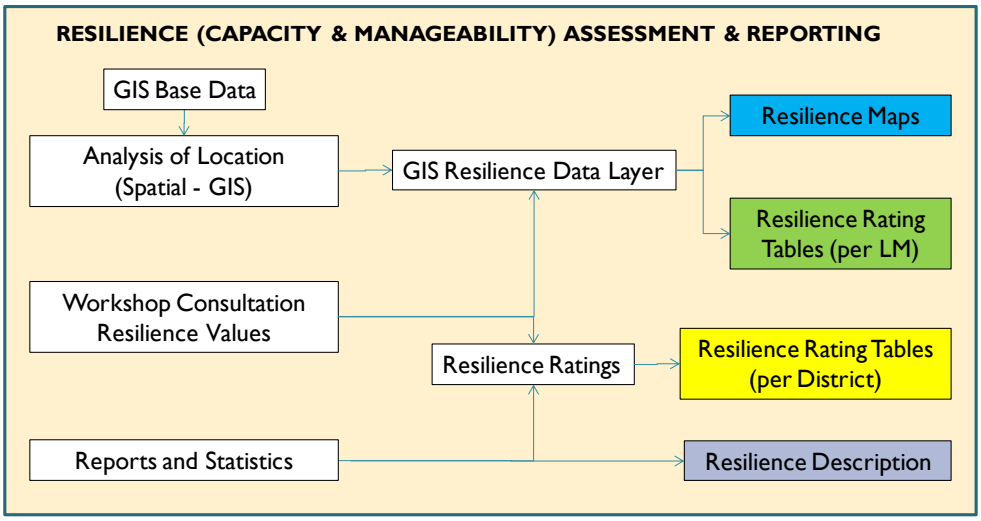


Figure 77: Assessment and Reporting Approach for the eThekwini Municipality

Resilience Profile of the eThekwini Municipality

The resilience characteristics relate to the capacity within the eThekwini Municipality area to counter the effects of hazards and vulnerabilities. Resilience levels consist of Manageability and Capacity values, and are defined as follows:

Manageability –defined as the combination of all the strengths and resources available within the government departments and line-functions that can be used to reduce the level of risk or the effects of a disaster. This includes the level of staff or human resources, available expertise, suitable experience, available vehicles, equipment, funding or budget allocations, facilities and risk reduction and response plans.

Capacity – defined as the combination of all the strengths and resources available within the community or society that can be used to reduce the level of risk or the effects of a disaster. Capacity was rated by making use of the same classification as Manageability.

Resilience – The Resilience value defines the total 'resilience' level in a specific area or community based on the *Capacity* levels of the community, as well as the *Manageability* levels of the authorities, government department and line-functions to deal with disaster risk or the effects of disasters. The Resilience value is calculated by combining the Manageability and Capacity values.

Description of Resilience Role Players

The resilience role players play an important role in prevention, preparedness, rescue, management and in the aftermath of a disaster. The role players are; Business, Industry and the Chamber of Commerce. The private sector plays an important role with regard to disaster management. The role of such players has been in the field of relief and recovery. While the value of such contributions is great, the commercial sector should play a greater role in the mitigation of disasters through training, education and capacity building. Involvement by this sector can also be expanded from that of relief to proactive mitigation.

Cooperation and coordination between the private sector and the eThekwini Municipality, including disaster management, is encouraged. The private sector should also ensure that internal risk management activities, especially related to enterprise risk and business continuity management are in place. This will lead to a more resilient economy in the eThekwini Municipality.

Community Representatives

Community groups have played and continue to play a major role in disaster management. They are quick in response, have local knowledge and expertise to their advantage and can also act as important channels for awareness raising and education. Disaster management therefore needs to be a coordinated effort between government, various institutions, non-governmental organisations, community-based organisations and the commercial sector.

Education

Role-players in the education sector play an important role in terms of capacity building, raising awareness and can also assist with risk reduction and response initiatives. Schools often also have infrastructure that can be used during the response to disasters.

Department of Social Development / Social Security

The Department of Social Development has the following primary core functions:

- Management and oversight over social security, encompassing social assistance and social insurance policies that aim to prevent and alleviate poverty in the event of life cycle risks such as loss of income due to unemployment, disability, old age or death occurring.
- Developmental social welfare services that provide support to reduce poverty, vulnerability and the impact of HIV and AIDS through sustainable development programmes in partnership with implementing agents such as State-funded institutions, Non-Governmental Organisations (NGOs), Community-Based Organisations (CBOs) and Faith-Based Organisations (FBOs).

Department of Home Affairs

The mandates of the Department of Home Affairs are embedded in legislation, as well as other policy documents. In order to fulfil its mission the Department executes or participates in the execution of Civic (national population register, records, citizenship, travel documents and passports and identity documents), Immigration (admissions, refugee affairs, policy directives, counter-xenophobia) and other mandates.

Department of Water and Sanitation

This department is primarily responsible for the formulation and implementation of policy governing this sector and has override responsibility for water services provided by local government. While striving to ensure that all South Africans gain access to clean water and safe sanitation, the water sector also promotes effective and efficient water resources management to ensure sustainable economic and social development.

Disaster Management Unit

The role of the Disaster Management centre is described in the Act and related framework documents. The Disaster Management functions are overall disaster risk management and co-ordination, as per Section 44 of the Disaster Management Act.

In order to effectively implement Disaster Management within a municipality such as the eThekwini Municipality, an appropriate investment should be made in human resources, disaster management systems, plans and procedures.

Electricity Department

Electricity provision plays an important role with regard to disaster management. Not only can the failure of electricity supply cause wide spread disruption to communities, but extended periods of disruption can reduce the resilience of communities and municipal role players especially in disaster situations.

Fire Service Department

The Fire Service plays a critical role in disaster management. This is not only related to emergency response for incidents such as fires and accidents, but also relates to fire risk reduction with inspections and training throughout the municipality.

Metropolitan Police

The traffic department can play an important role in both pre- as well as post-disaster situations. Not only does the traffic department assist with managing aspects related to transportation during emergencies and disasters, but the traffic department has an important responsibility with regards to risk reduction and law enforcement which can reduce the risk of transportation related disasters.

Non-Governmental Organizations

Non-governmental organisations can often provide relief more quickly, and in the case of small disasters, more appropriately, it is important that the government ensure that non-governmental organisations receive information promptly. At the same time, non-governmental organisations have useful information to offer to the local early-warning system. Non-governmental organisations should therefore be a formal part of the local early-warning system. In larger disasters they can offer complementary assistance to government.

South African National Defence Force

Besides defence, the South African National Defence Force (SANDF) may be employed for service in the preservation of life, health, or property and for service in the provision or maintenance of essential

services. The SANDF can also be requested to provide support by other government departments. In the past, the SANDF has provided valuable support and services to national departments and local government where capacity has been lacking. The SANDF's role therefore is cross-cutting and can be used to enhance existing attempts by other government departments to deal with disaster situations more effectively.

South African Police Service

The primary role of the South African Police Service (SAPS) is crime prevention, crime investigation, and the security of citizens. The SAPS may be employed for service in the preservation of life, health, or property and for service in the provision or maintenance of essential services and can be requested to provide support by other government departments.

Weather Services

The South African Weather Service provides two distinct services, namely public good services which are funded by government, and commercial services, where the user-pays principle applies. The service provides weather and climate forecasting, provides weather services to the aviation industry and also provides maritime weather forecasting for the oceans around South African extending to Antarctica. They can play an important role in early warning and risk reduction in disaster management.

GIS based resilience mapping for the eThekwini Municipality

The risk assessment approach also required the spatial mapping of resilience levels in the eThekwini Municipality. The results show strong resilience centrally in eThekwini Municipality that decreases in the outlying areas. This analysis is only based on the location of key facilities.

The result of the resilience mapping based on the location of key facilities is shown below:

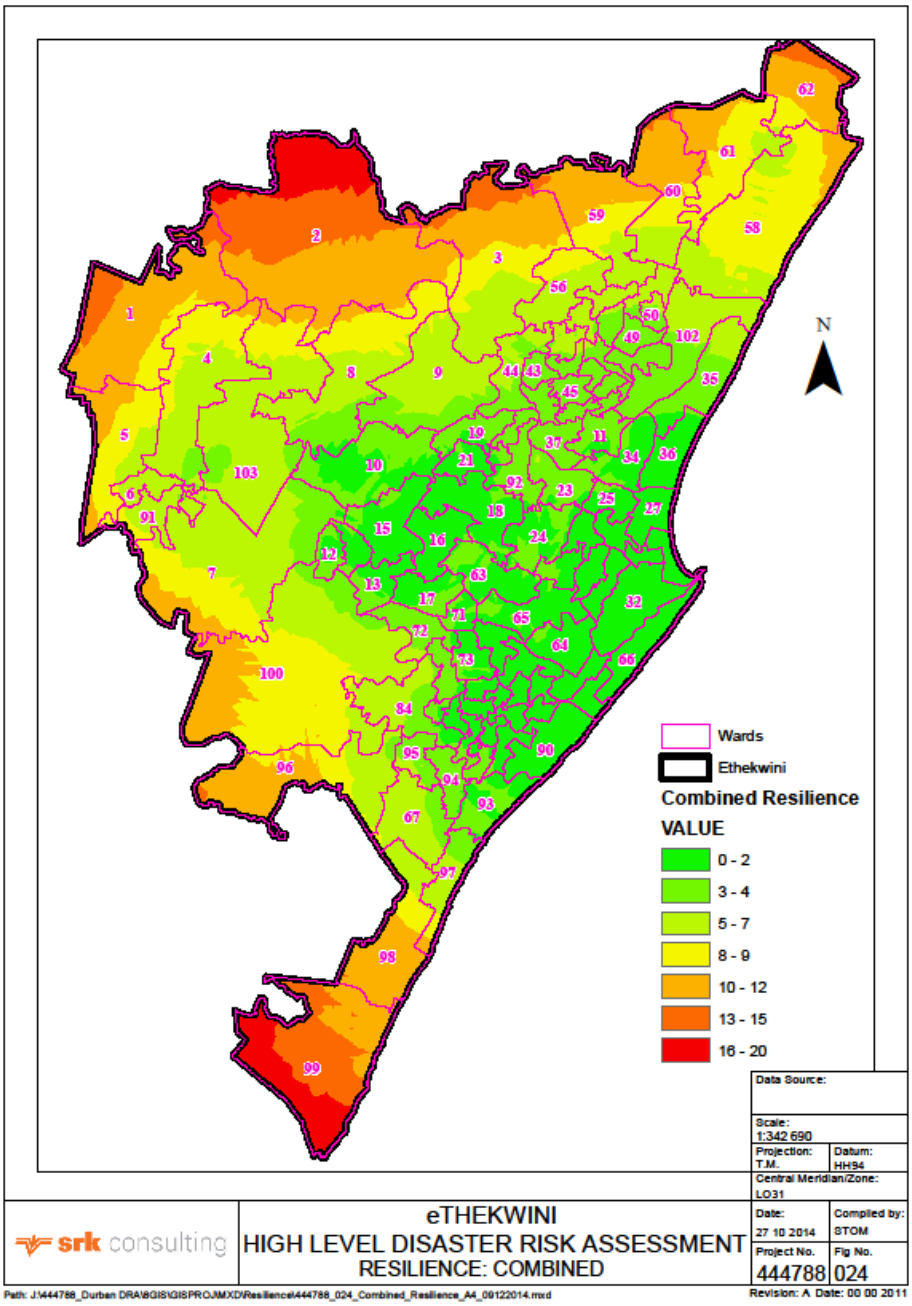


Figure 78: Ethekwini High Level Disaster Risk Assessment Resilience: Combined

Risk Assessment and Modelling Results

The Risk modelling process was completed by using the hazard, vulnerability and capacity data, and calculating the risk levels. The risk assessment results for the eThekwini Municipality, based on the different risk assessment approaches undertaken, are presented below.

Prioritised Risk Profile

The prioritised risk profile for the eThekwini Municipality is based on the data received from the workshop consultations, as well as the base data collected during the study. The stakeholder

perception data and local resilience data were also compared with the desktop hazard assessment results, and the prioritised risk profile was developed. The Risk Prioritization for the eThekwini Municipality is shown in the Table below..

No	Risk	
		Combined
1	Civil Unrest - Crime	1.87
2	Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog)	1.80
3	Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure)	1.80
4	Disease / Health - Disease: Human	1.67
5	Fire Hazards - Formal & Informal Settlements / Urban Area	1.67
6	Infrastructure Failure / Service Delivery Failure - Electrical	1.66
7	Hazardous Material - Fire/Explosion (Storage & Transportation)	1.63
8	Oceanographic - Storm Surge	1.61
9	Hazardous Material - Spill/Release (Storage & Transportation)	1.59
10	Infrastructure Failure / Service Delivery Failure - Water	1.56
11	Infrastructure Failure / Service Delivery Failure - Sanitation	1.54
12	Oceanographic - Sea Level Rise (Climate Change)	1.53
13	Pollution - Water Pollution (Fresh and Sea)	1.52
14	Environmental Degradation - Loss of Biodiversity	1.52
15	Transport Hazards - Road Transportation	1.52
16	Pollution - Land Pollution	1.46
17	Pollution - Air Pollution	1.45
18	Hydro-meteorological Hazards - Extreme Temperatures	1.44
19	Civil Unrest - Demonstrations / Riots	1.42
20	Civil Unrest - Armed Conflict (Civil/Political War)	1.37
21	Environmental Degradation - Deforestation	1.36
22	Infestations - Plant Infestations (Intruder Plants)	1.35
23	Transport Hazards - Air Transportation	1.27
24	Infestations - Insect Infestation	1.26
25	Environmental Degradation - Land Degradation	1.25
26	Transport Hazards - Rail Transportation	1.19
27	Transport Hazards - Water Transportation (Incl Marine Accident)	1.19
28	Civil Unrest - Refugees / Displaced People	1.18
29	Geological Hazards - Landslides/Mud flows	1.15

30	Structural Failure - Dam failure	1.15
31	Infrastructure Failure / Service Delivery Failure - Information Technology	1.09
32	Environmental Degradation - Erosion	1.08
33	Infestations - Animal Infestation / Over Population	1.07
34	Major Event Hazards - Political	1.04
35	Oceanographic - Tsunami	0.88
36	Civil Unrest - Xenophobic Violence	0.87
37	Disease / Health - Disease: Animal	0.87
38	Structural Failure - Building Failure	0.82
39	Civil Unrest - Terrorism	0.81
40	Infrastructure Failure / Service Delivery Failure - Transport	0.77
41	Geological Hazards - Earthquake	0.59
42	Hydro-meteorological - Drought	0.58
43	Fire Hazards - Veld/Forest Fires	0.56
44	Hydro-meteorological Hazards - Desertification	0.55
45	Major Event Hazards - Cultural / Religious	0.55
46	Other - Space Objects	0.54
47	Structural Failure - Bridge Failure	0.44
48	Geological Hazards - Subsidence	0.40
49	Disease / Health - Disease: Plants	0.39
50	Major Event Hazards - Sport	0.35
51	Major Event Hazards - Recreational / Commercial	0.34
52	Geological Hazards - Rock-fall	0.32
53	Infrastructure Failure / Service Delivery Failure - Gas	0.03
54	Infestations - Algal Bloom (Red Tide)	0.02

Conclusions and Recommendations

The top 10 disaster risks for eThekwini Municipality were identified as:

1. Civil Unrest - Crime
2. Hydro-meteorological Hazards - Severe Storms (Wind, Hail, Snow, Lightning, Fog)
3. Hydro-meteorological Hazards - Floods (River, Urban & Dam Failure)
4. Disease / Health - Disease: Human
5. Fire Hazards - Formal & Informal Settlements / Urban Area
6. Infrastructure Failure / Service Delivery Failure - Electrical
7. Hazardous Material - Fire/Explosion (Storage & Transportation)
8. Oceanographic - Storm Surge
9. Hazardous Material - Spill/Release (Storage & Transportation)

10. Infrastructure Failure / Service Delivery Failure – Water

- Crime was rated as the highest risk. Durban Central is amongst the highest crime precincts in the country.
- A high rating Hydro-meteorological Hazards is consistent with the coastal locality of Durban and the probable impact of climate change.
- Disease / Health - Disease: Human rated high. According to the Antenatal survey, 38% of the people in the eThekwini Municipality are HIV positive.
- The eThekwini Municipality has very high levels of development in comparison with other municipalities in KwaZulu-Natal. This in itself is a strength but also a weakness due to the consequential vulnerability to essential services failures.
- The vulnerability and risk associated with the harbour and South Durban Basin also extend into a large part of the country. The two petro chemical refineries situated in eThekwini Municipality supplies fuel to a large portion of the country, a disaster event in this area can therefore cause a large scale problem and can adversely affect other parts of the country.
- It was evident from the results of the community survey that there is a strong correlation between the desktop identified hazard, vulnerability and resilience factors and what the perceived causes of potential disasters could be in the community's opinions.
- The priority and high impact risks should also be reflected in future budgets and in the IDP of eThekwini Municipality. There should be specific focused actions to reduce vulnerability, minimise hazards and to increase resilience with relation to priority and high impact risks.

2.11.3 Planning for Disaster Prevention

The eThekwini Municipality is being pro-active in planning for the prevention of disasters such as climate change. The Engineering Unit has modelled sea level rise projections in the event of sudden storm surges and expected sea level rise. The Engineering Unit is also currently developing flood risk forecasting known as the Flood Early Warning System study that will protect life, property and investment in the event of flooding. Sea level rise is discussed below whilst progress made on the Flood Early Warning System is provided.

Sea Level Rise Projections

The eThekwini coastline is highly vulnerable to erosion which leads to a higher and continued risk to human life, the natural and built environments. Erosion is due to both natural forces (sometimes exacerbated by human activity) as well as man-made causes. The natural causes are global warming that will cause an increase in sea-level-rise and an increase in intensity and frequency of coastal storms. It is expected that our beaches will lose more sand as a result of natural processes. The severity of such loss are also dependent on occurrence of storm events, equinoxes and spring high tides. Human activities include construction that interferes with natural sand movement which may stifle beach recovery after a major storm event. The removal of sand from the beach also increases

the severity of erosion. Badly planned, inadequate and inappropriate sea defense infrastructure may cause further loss of land which results in local beach degradation and an impact on adjacent and properties further along the coast. The removal of vegetation from the dunes destablises these protective sand barriers and reduces its function as the primary sea defense system.
The best international practice in the face of sea level rise and the changing coastal dynamic is a managed retreat away from the shoreline.

In order to protect people, property and economic activities from dynamic coastal processes the eThekwini Municipality Engineering Department has undertaken studies to project the possible sea level rise scenarios in the next 100 years. The rise in sea levels during 1980-1999 has been used as the base data for the study.

The sea level rise modelling considers the following low, medium and high scenarios:

- a 300mm rise in sea level modelled on current sea level rise patterns
- a 600mm rise in sea level is modelled on an accelerated sea level rise prediction
- the 1000mm rise in sea level has taken the melting of the ice-caps into account.

The sea level rise modelling is used as a tool to inform municipal comment on development applications along the coastline and planning decision. The map below is an example that indicates sea level rise and slip failure projections for the Umdloti dune.

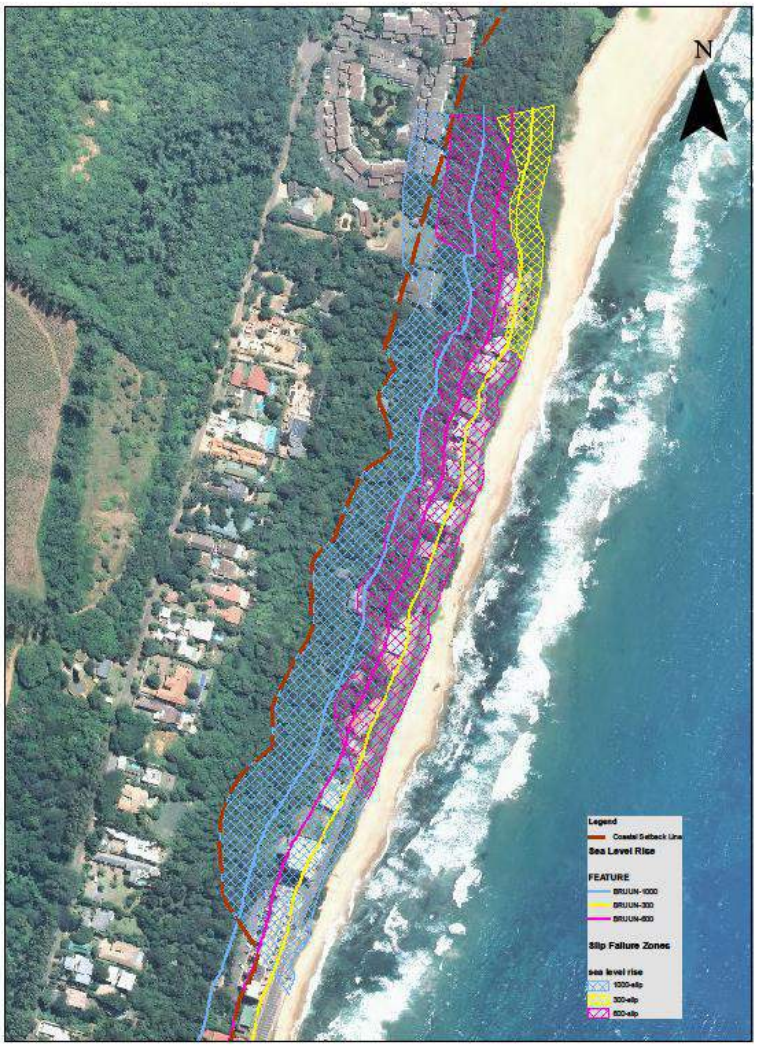


Figure 79: Sea Level Rise and Slip Failure Projections for the Umdloti Dune

These projections are used as a possible preventative measure to protect life and investments such as to provide beach erosion and inundation scenarios along the Durban coastline that will inform decisions on existing and new infrastructure and development as well as to inform the Environmental Authorisations on development within 100m of the high water mark.

The sea level rise analysis will need to be updated at regular intervals to ensure that any significant changes which may occur are incorporated as early as possible.

Development of a Flood Early Warning System (FEWS)

Changes in rainfall patterns, rising sea-levels, population growth and economic activity are driving an increase in demand for flood risk forecasting and possible mitigation engineering. The Coastal, Stormwater and Catchment Management Department of the Engineering Unit is in the process of developing and rolling out a flood early warning system (FEWS) for the eThekwini Municipality.

A solid operational flood management system will allow for effective and efficient response to flooding, avoiding damage and saving lives. Currently the disaster management centres are reacting to real time, often turning to the engineers to provide advice on where to respond to, who to evacuate, and how bad things may become.

The eThekwini Municipality are implementing a FEWS approach, which is based on open source software and can be tailored for each specific city or region by engineers. The system has been implemented in over 35 countries and in many cases (such as the USA, England & Wales and the Netherlands) it is the official national flood forecasting system. The eThekwini Municipality has completed a comprehensive merging of several hydraulic models and field studies for calibration/validation purposes. The installation of real time monitoring network will allow for ground-truthing of predictive models that are running the Global Forecast System (GFS). The South African Weather Service has been engaged with a view to access the radar data which will further improve the flood forecasting accuracy.

CHAPTER 3

SYNTHESIS OF KEY ISSUES, CHALLENGES AND DEVELOPEMENT TRENDS WITHIN ETHEKWINI MUNICIPALITY

Synopsis: This chapter represents a synthesis of the key issues coming out of this analysis as a basis for informing the Municipal Vision, Principles, Strategies and Conceptual Framework proposals in Chapter 4 and 5. The synthesis also provides an overview of the spatial issues and opportunities within the Municipality and gives direction to the spatial proposals as outlined in Chapter 6.

3. SYNTHESIS OF KEY ISSUES, CHALLENGES & DEVELOPMENT TRENDS

The future development pattern of the EMA is informed by the current realities of the Municipality as has been analysed in the previous chapters. Developing spatial guidance for the Municipality requires an understanding of the current situation in terms of challenges and key issues being faced by the Municipality and the opportunities available to address these. Together with an assessment of underlying causes and impacts, this understanding has provided a basis on which to utilize opportunities and to direct future development towards common goals. This chapter presents a summary of these issues to help develop spatial guidance for the Municipality. A summary of key issues as identified in the plan include the following:

a) The current urban form

The spatial structuring elements analyzed in the plan not only determine the structure of the Municipality but also contribute to the sustainability, efficiency and legibility of the Municipality. It is proposed in the plan that for the Municipality to perform optimally the overlapping systems of **movement and activity need to be accessible to all communities,** they need to operate efficiently and be sustainable. However, the current reality of the EMA (as influenced by previous planning ideologies) has resulted in some areas performing better than others due to their interconnectedness with other areas and due to their ability to support human activity adequately at the local neighbourhood level. The current reality is also that of segregation of people and activities which has resulted in a mismatch between workers and jobs reflected in the high levels of commuting between home and work especially for the poor.

The current spatial form of the EMA is also **fragmented with low densities**. The spatial fragmentation and low density dramatically affect the access which residents can enjoy to places of residence, to employment, and to social facilities. The fragmentation of the metropolitan area can threaten its potential as an economic engine, and social and environmental problems in any one part of the urban area can stunt overall metropolitan growth. It has been established that the current national housing policy subsidy has a major contribution to the low **density sprawling city.** The housing subsidy offered through the housing policy allows for a single house on one plot and an increasing search for cheap, large new land parcels beyond the urban edge and far from centres of economic opportunities. The **housing sector** is recognized in the spatial development framework (SDF) as a major investor into the built environment. Based on this, the housing plan has a major role to play in facilitating sustainable urban growth provided housing is built in more appropriate locations and at appropriate densities whilst ensuring that basic needs/services provision is prioritized in areas with backlogs.

Poverty, Inequality and Unemployment

Poverty, inequality and unemployment are the crucial challenges facing the entire country and are issues that need to be addressed within our Municipal area and beyond our borders. A sustainable increase in employment will require a faster-growing labour intensive economy and the removal of structural impediments, such as poor-quality education or spatial settlement patterns that exclude the majority. These are essential to achieving higher rates of investment and competitiveness, and expanding production and exports. Business, labour, communities and government will need to work together to achieve faster economic growth.

b) Environmental Management and Climate Change

It has been identified in this plan that climate change and the pressure of development on natural resources are key environmental factors affecting the EMA. Climate change will have a significant effect on the land and its people in the form of extreme weather conditions, storms, drought, floods and rising sea levels. For new growth and development, the SDF suggests that a comprehensive response to the challenge of climate change is needed in the EMA. The SDF further proposes compact city form to curb low density settlements and urban sprawl. This can be achieved through appropriate densification of existing urban centresand well located settlements to maximize the use of existing services and infrastructural capacity, and ensuring that development concentrates along specific public transport / mixed use corridors and within existing nodes, that densification is promoted at strategic locations, that environmental conservation areas and areas of high ecosystem services delivery are demarcated and protected and areas of agricultural importance are identified and protected.

Areas of high density such as the Durban CBD are strongly affected by the Urban Heat Island Effect, i.e. the temperature in these areas is significantly higher than in less developed areas. This effect will become more severe through climate change but it can be reduced e.g. through measures such as planting and reflective surfaces. The EM plans to research and address the Urban Heat Island effect.

c) The Movement System

The movement system is a key structuring element within the Municipality. Cities are to a large extent ‘movement economies’ and the efficiency of the urban system is directly related to the efficiency of the movement system. The eThekwini municipal area has a comprehensive transportation network comprising of road, rail, air and maritime linkages. The network has a well-articulated hierarchy the challenge however, is to ensure maximum accessibility of goods, services and destination points to all residents of the Municipality largely by linking land use and transport planning. This is to enable people and goods to be moved more efficiently and promote greater integration and accessibility. It is also crucial for eThekwini to develop an efficient, viable and integrated public transport and freight system that will ensure local and regional economic sustainability.

d) Rural Planning

The rural areas of eThekwini have limited access to physical and social services and contain limited economic development opportunities and as such are highly dependent on the urban centres/areas for resources and income. The SDF recognizes there is a need to provide appropriate guidance to Council policy and establish relevant development programmes and projects for rural areas. This will involve the facilitation of social, economic, institutional, and physical integration and promote integrated development in rural and urban areas. Future plans need to address the uneven access to land and economic and social opportunities, between urban and rural areas and to ensure these are addressed in a more holistic manner. For such integrated development to take place, it is critical that the institutional challenges with land management in rural areas are urgently addressed through the appropriate political processes.

Presenting the way forward

The IDP 2012/13 introduced a number of key strategic priority areas targeted at achieving the vision and addressing the development challenges outlined above. The IDP strategy recognized that the Municipality had to make hard choices, not in a vacuum, but within a spatial framework. This will be done by connecting actions, resources and expenditure across the metropolitan area to unlock sustainable growth, whilst ensuring that inequitable, inefficient and unsustainable consequences of past development patterns are addressed over a period of time. The key strategic priority areas identified in the IDP for achieving the Municipality's vision are summarized below and provide the basis for the Spatial Vision and conceptual framework SDF proposals in Chapter 5 and 6 respectively.

The Strategic Priority Areas as identified within the IDP are as follows:

STRATEGIC PRIORITY AREAS

- **STRATEGIC PRIORITY ONE: Creating Sustainable Livelihoods**

 Goal: All citizens in a prosperous eThekwini earn a decent living and support a sustainable lifestyle.

 Value Statement:

 Ensure that initiatives undertaken by the Municipality contributes to strong economic growth, sustainable job creation, poverty alleviation, improved skills and promotes a Green Economy.

- **STRATEGIC PRIORITY TWO: Socially Cohesive City**

 Goal: eThekwini has well rounded and caring citizens who act to support the common well-being of eThekwini and embrace mutual respect, tolerance and compassion for those in need.

- **SRATEGIC PRIORITY THREE: A Financially Sustainable City**

 Goal: To maximize the Municipality's financial resources to ensure long-term financial viability and sustainability, thus improving service delivery.

- **STRATEGIC PRIORITY FOUR: Creating a Safer City**

 Goal: All those who live, work, play and invest in eThekwini feel and are safe in private and public spaces.

- **STRATEGIC PRIORITY FIVE: Promoting an Accessible City**

 Goal: All citizens of eThekwini can easily and affordably access the facilities and services that they require for a sustainable lifestyle.

- **STRATEGIC PRIORITY SIX: Environmentally Sustainable City**

 Goal: The environment of eThekwini protects and promotes the health of its citizens and its biodiversity.

CHAPTER 4

THE SPATIAL VISION

is to have

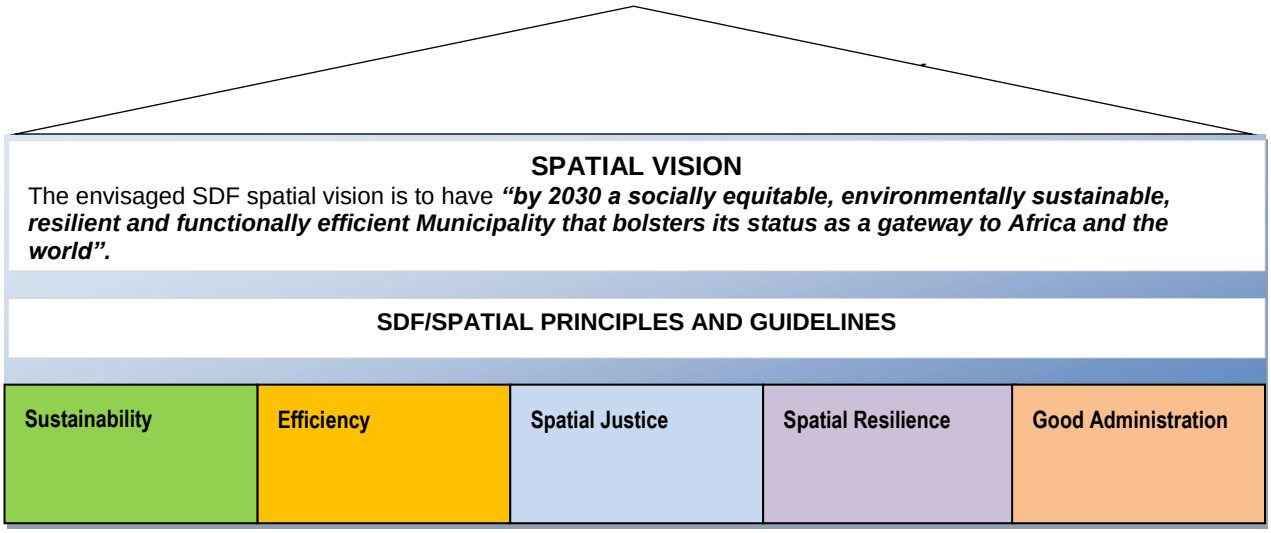
"*by 2030 a socially equitable, environmentally sustainable, resilient and functionally efficient Municipality that bolsters its status as a gateway to Africa and the world".*

*T*his vision is expanded upon in the development principles (*Mainstreaming and Coordinating Environmental Planning, Promoting Spatial Concentration / Efficiency, Enhancing Economic Potential, Co-ordinated Planning and Implementation, Promoting Balanced and Sustainable Urban and Rural Development*) as discussed in this Chapter. The principles in turn lay the foundation for the SDF proposals and strategies that give direction to a range of spatial outcomes relating to growth and development of the EMA.

4. THE SPATIAL VISION

The SDF translates the current municipal vision, namely, *"**By 2030 eThekwini will be Africa's most caring and livable city**"*, to have a spatial focus. The envisaged SDF spatial vision is to have **"by 2030** ***a socially equitable, environmentally sustainable, resilient and functionally efficient Municipality that bolsters its status as a gateway to Africa and the world"***.

4.1 Spatial Vision and Principles informing eThekwini Municipal SDF



The above vision is expanded upon in the development principles discussed below. The SDF spatial vision and principles have been informed by the Sustainable Development Goals, National Development Plan, Vision for 2030 (National Planning Commission, 2011), National Integrated Urban Development Framework,2016, the Provincial Growth and Development Strategy (PGDS, 2011) and the IDP. The principles in turn lay the foundation for the SDF proposals and strategies that give direction to a range of spatial outcomes relating to the growth and development of the EMA. The underpinning spatial principles are as follows;

4.1.1 Sustainability& Resilience: Mainstreaming and Coordinating Environmental Planning& Climate Change

A key focus of this principle is on Mainstreaming and Coordinating Environmental Planning and Climate Change as a means of protecting and conserving to environmentally sensitive areas and prime agricultural land within the Municipality and encompassing the integration of social, economic and ecological factors into all planning, decision making and implementation in order to:

- build resilience to extreme weather events, and enable long term adaption to climate change;
- reduce greenhouse gas emissions to mitigate climate change;
- promote positive environmental quality and introduce environmentally sensitive management of development;

- promote a spatial form that supports the EMA as a world class/globally competitive and financially efficient region;
- promote an inherent value of the natural and built environment and an understanding of the environment's role in providing natural resources to underpin sustainable socio-economic development;
- alleviate environmental and pollution related health hazards;
- retain and enhance natural qualities and assets of the EMA.
- Empower citizens and build urban resilience in response to a future that is increasingly uncertain

4.1.2 Promoting Spatial Efficiency

The principle of Spatial Efficiency is aimed at ensuring the optimal use of existing resources and infrastructure, compacting development and discouraging urban sprawl, encouraging mixed residential & employment opportunities in close proximity and streamlining development application procedures and decision-making procedures. Based on this principle the EMA must strive to:

- promote more compact development by encouraging higher densities within existing centres and along public transport routes to increase accessibility and reduce the need to travel long distances;
- reduce the separation between places where people work and live;
- optimize development in areas of greatest opportunities\encourage efficient use of infrastructure and facilities;
- promote optimal use of remaining land opportunities by encouraging urban infill;
- foster a socially equitable environment where the resources, opportunities and amenities offered by the Municipality are easily accessible to all
- promote effective public transport and non-motorised transport in support of a more efficient spatial form

4.1.3 Principles of Spatial Justice and Sustainability, Enhancing Economic Potential, Co-ordinated Planning and Implementation to support economic growth

This principle is aimed at improving productivity and closing economic performance gaps, promoting sustainable economic growth and ensuring the alignment of projects. This principle not only aims to improve productivity but also recognizes that infrastructure planning and delivery has a direct impact on the quality of household and community life as well as impact on how efficiently the economy functions and on the utilization of a region's potential.

In order for eThekwini to maintain its status as a gateway to Southern Africa and the world, particular attention to its infrastructure planning and delivery is needed. The Municipality must invest in building

modern infrastructure, particularly freight and logistics, that reduces business costs, enhances competitiveness and creates employment firms. In line with this principle the Municipality needs to:

- promote Dube Trade Port as a key transport, logistics and communication hub
- promote development of Information and Communications Technology (ICT)
- invest and maintain tourists nodes
- ensure energy generation capacity from renewable sources is built and energy more efficiently used to reduce greenhouse gas emissions without impacting on economic performance
- invest in public infrastructure to support people in social and work life
- regenerate key economic nodes and corridors especially in townships
- support greater industrial land
- promote investment in key sectors and create a diverse economy and
- reduce the cost of doing business and simplifying development procedures

4.1.4 Principle of Spatial Justice: Promoting Balanced and Sustainable Urban and Rural Development

In the South African context, the concept of equity is an extremely important component of society as it emphasizes the need to re-dress unequal planning of the past.As with other South African cities, eThekwini has been shaped by the political ideologies of apartheid and post-apartheid class divisions, in which racial groups are separated and buffered from each other with the poorer groups located on the periphery of the Municipality.

Few formal job opportunities exist within these dormitory suburbs and accessing employment means long daily commuting to larger centres. Commuting distances range from 12–25 km to more than 40 km. In this context, balanced development promotes the linking of areas of economic opportunity with areas of greatest needs and promoting a mixture of land uses in support of each other at various spatial urban and rural scales.

This principle brings to attention the need for the development of former townships and rural areas which have largely been neglected in planning historically. This plan advocates for the integration of rural and urban areas so there is equality in decision making associated with general planning and land use management across the entire Municipal area. To this end, this principle of an equitable city is adopted and translated as an informant to:

- create quality and safe living environments for all residents of the Municipality (urban and rural).
- address spatial imbalances ensuring that basic needs/services provision is prioritized in areas with social and servicing backlogs
- reduce infrastructure and service disparities
- redressing imbalances in the location and access to social and employment opportunities
- promote integration and inclusivity by linking and reducing distances between people, places and activities

- make rural areas productive
- build greater resilience to social and economic climatic shocks particularly in areas of need or high risk areas

4.1.5 Good Administration

This principle draws attention to the need for

- sector engagement across all spheres of government
- an integrated and consistent approach to urban / rural and land use management across all spheres of government
- and the need for an inclusive, transparent and public process in the preparation of these plans to ensure all citizens the right to engage on matters that directly affect them

CHAPTER 5

THE SDF CONCEPTUAL FRAMEWORK

Synopsis: This Chapter presents the SDF Spatial Conceptual Framework. The Spatial Conceptual Framework indicates how the municipal vision along with the key issues, challenges and trends outlined above can be translated spatially to direct, guide and inform municipal decisions relating to the use, development and planning of land.

5. THE SPATIAL CONCEPTUAL FRAMEWORK

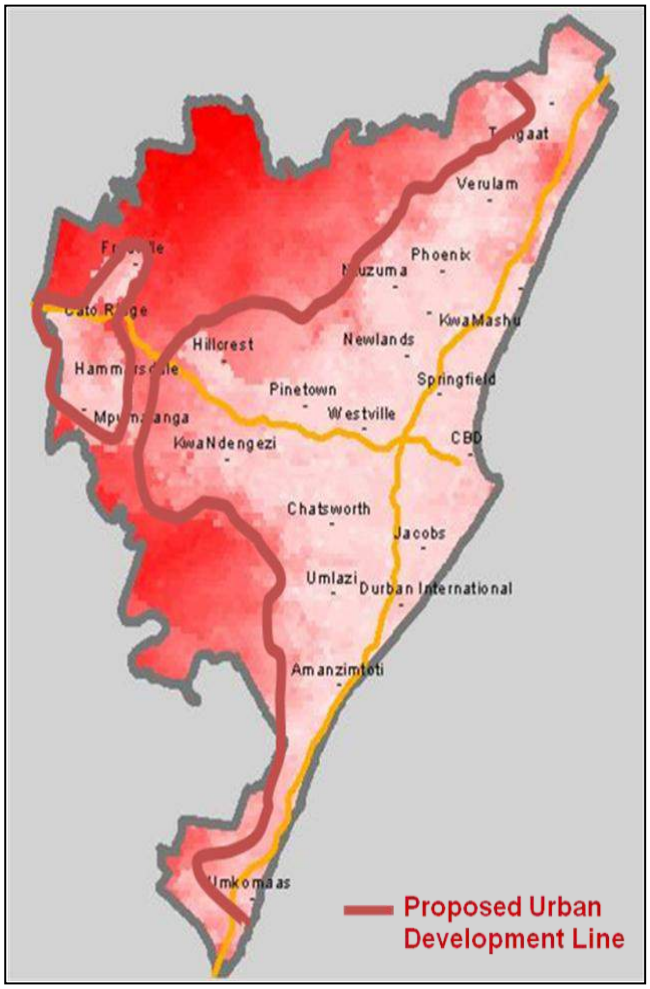
The SDF is intended to guide and inform municipal decisions relating to the use, development and planning of land and bulk infrastructure. The Spatial Development Concept outlines the key spatial tools used to protect both the built and natural environment and guide the direction of growth and the delivery of social services by outlining areas in which particular types of land uses should be encouraged or discouraged and areas in which the intensity of land development could either be increased or reduced.

The Key Spatial Concept Tools include:

- An **Urban Core**, being the urban centre, which generally has servicing capacity and thus opportunity for densification and can support thresholds for a range of services, industry and public transport;

- An **Urban Development Corridor bounded by an Urban Development Line (UDL).**
 The Cost- Surface Model, prepared by the Council for Scientific and Industrial Research for the eThekwini Municipality (Figure 67), indicates where it is cost effective to extend municipal services for the provision of low cost housing. This study was one of the key informants of the Urban Development Line (UDL). The UDL is used to demarcate the outer extent to which urban development should be permitted to establish within the metropolitan area in the long term in order to promote a more accessible, compact, efficient, equitable and financially sustainable settlement form. The UDL therefore implies that there is a rural or non-urban periphery or hinterland that is different in character and which has different servicing needs and servicing constraints and which supports different lifestyles. The UDL is therefore an important spatial tool for enforcing density targets and managing the growth patterns of the municipality over time but also for protecting agricultural and environmental resources beyond the UDL, ensuring food security and ensuring the municipality's resilience to climate change. As not all areas within the proposed Urban Development Corridor/ UDL are currently serviced, it is recommended that development is directed to those areas that have existing / excess infrastructure capacity and support mixed use and compact city development, for example, Nodes and Corridors or where incremental expansion is planned. The location of the Urban Development Line is shown in Figure 68.

- **A Rural Hinterland** with a different character, lifestyle and development intensity and where access is poor and servicing costs are high. Such areas are seen as important for protecting agricultural and environmental resources, ensuring food security, addressing social needs and building the resilience of communities.



Urban/ Rural Development & Services

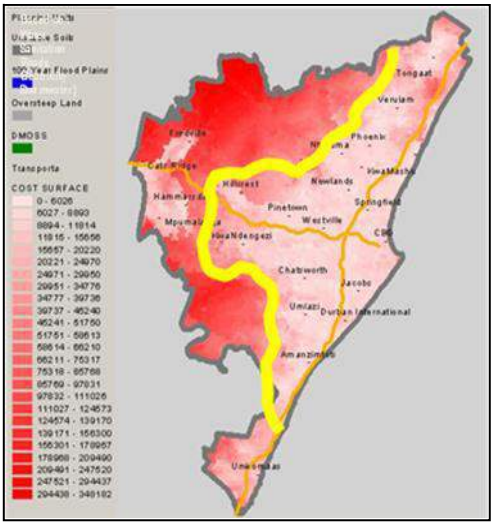


Figure 80: Urban Development Line

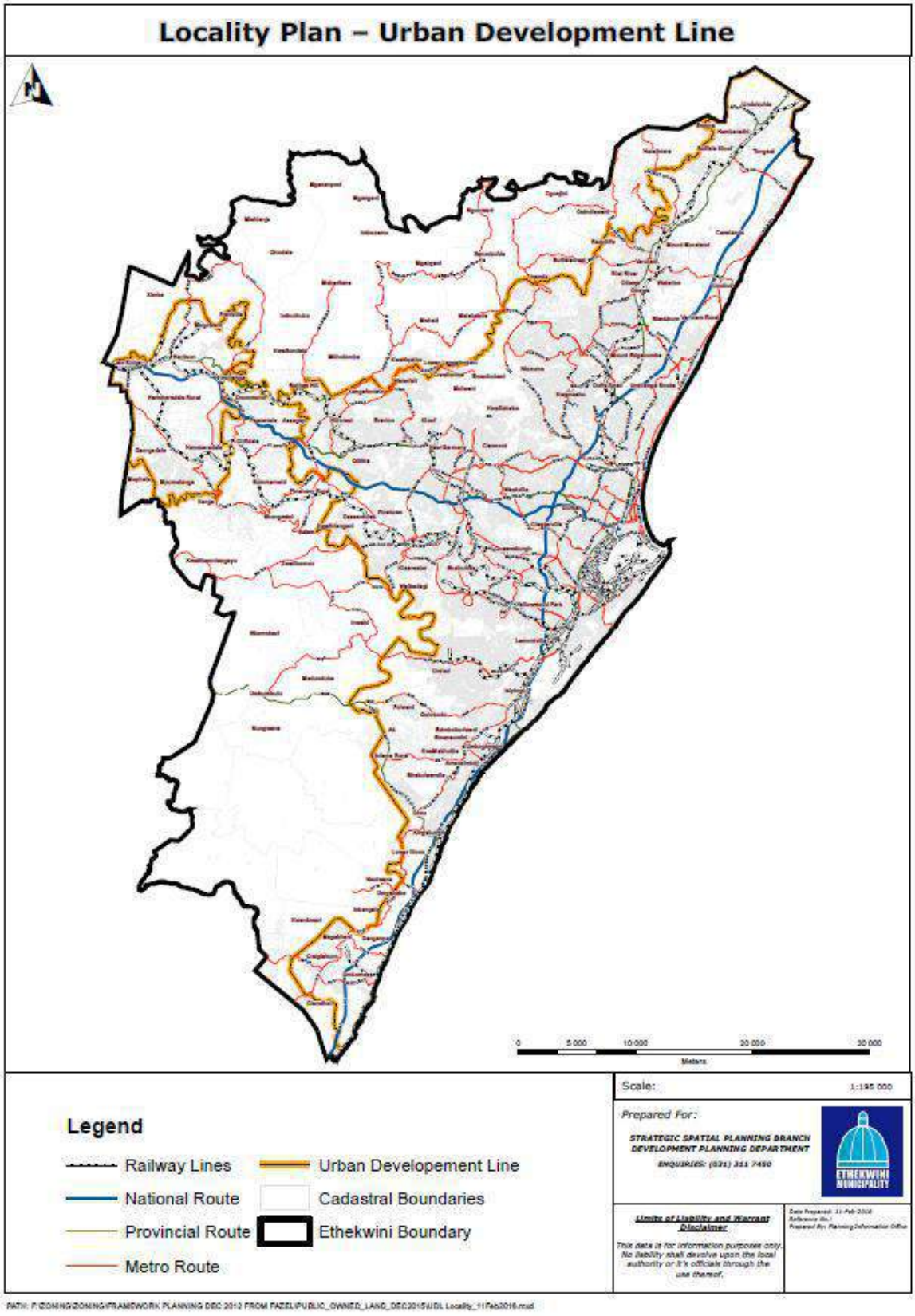


Figure 81: Urban Development Line Locality Plan

The Spatial Development Concept highlights specific areas that require targeted intervention to assist in guiding sustainable growth throughout the Municipality by:

- Identifying areas that need to be protected. These include natural, heritage and environmental key assets as well as agricultural and rural assets;
- Identifying areas of need where integration and restructuring is needed;
- Identifying areas where economic growth and investment will be pursued, and those where social investment will take preference;
- Identifying areas where infill, densification and urban renewal should be pursued;
- Identifying new growth areas and areas for future development;
- Identifying hierarchy of roads, transport corridors and nodes; and
- Identifying areas with existing infrastructure capacity to support integration, densification, as a way of ensuring sustainable development.

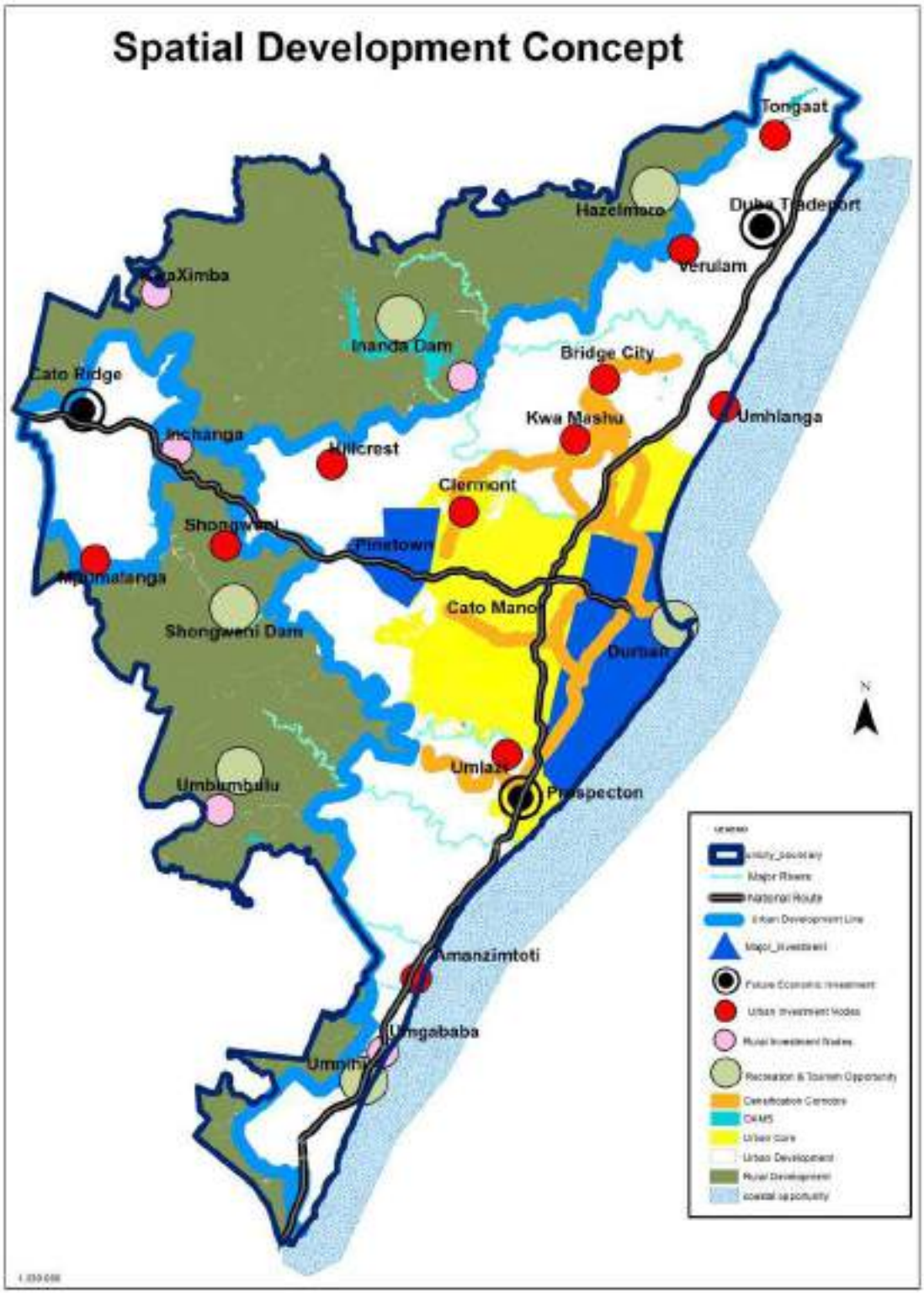


Figure 82: Spatial Development Concept

The spatial conceptual framework informs the SDF's spatial proposals. The spatial proposals are discussed in detail in the next chapter.

CHAPTER 6

THE SDF KEY SPATIAL PROPOSALS

***Synopsis*:** This chapter applies the Conceptual Framework into a detailed Spatial Development Framework. The proposals outlined in this Chapter will inform a variety of stakeholders of the future growth and nature of development that is envisaged for the municipality

6. KEY SPATIAL PROPOSALS

The SDF proposals, cantered on the key spatial structuring elements, essentially indicate the following:

- shows areas to be protected, including natural, coastal, agricultural and heritage resources and urban open spaces.
- Identifies a hierarchy of roads, transport corridors and nodes to promote accessibility and efficient movement of people and goods
- restructures the Municipality into a compact city to ensure that access to opportunity and amenity at the local and metro scale is equally available to all communities
- identifies future growth areas and where to direct growth in a sustainable manner and ensure that people are well located with respect to employment and social and recreational services;
- Identifies well located land, close to urban opportunities, areas where infill densification and urban renewal should be pursued
- Identifies areas where economic growth and investment will be pursued, and those where social investment will take preference.

Critical to achieving these objectives is a single integrated Land Use Management System (LUMS) that provides a clear direction and fosters a sense of security and confidence in the Municipality to its citizens, landowners, developers and businesses.

The spatial proposals are discussed around the following broad topics:

SPATIAL DEVELOPMENT FRAMEWORK

SPATIAL VISION

The envisaged SDF spatial vision is to have ***"by 2030 a socially equitable, environmentally sustainable, resilient and functionally efficient municipality that bolsters its status as a gateway to Africa and the world".***

ANALYSIS LAYER (see chapter 3)	GUIDING PRINCIPLES (informing proposals)	SPATIAL PROPOSALS & STRATEGIES	INTENDED OUTCOMES
1.ENVIRONMENT, COASTAL, AGRICULTURE AND DISASTER MANAGEMENT	***Principle of Sustainability and Resilience***	*6.1 Open Space System* • *Urban Development Line* • *Densification Strategy and Density Targets* • *Coastal Planning and Management* • *Coastal Erosion Line* • *Disaster Management*	• Protect and manage important environmental areas, agricultural and coastal resources • Promote food security • Supply a broad range of high quality ecosystem services to our residents. • To contribute and protect human well-being and quality of life. • Promote Sustainable Environmental Management • Create a network of green open spaces. • Support sustainable catchment management and storm-water practices. • Increase the adaptive capacity and resilience of the city.
2.LAND USE& SPATIAL PLANNING **3.TRANSPORT**	***Principle of Spatial Efficiency***	*6.1 Improving Accessibility / Efficient Movement of Goods* • *Road Hierarchy* • *Transit Oriented Development / Transport Nodes and Corridors* • *Urban Development Line* • *Infill and Densification / Density Targets* • *Mixed use nodes and corridors& Integration Zones*	• Supporting an Efficient Movement System in an effort to Support viable public transport and integrate historically disparate areas • Restructure the spatial form and promote accessibility of communities to employment, recreation and social opportunities. • Protect the mobility function of major roads (such as the N2 and N3) • Promote appropriate densities at Strategic Locations such as the IRPTN corridors • Enable access to social and economic services in existing nodes to reduce the need to travel long distances
4.BUILT ENVIRONMENT& HOUSING	***Principle of Spatial Justice***	*6.3 Areas of need* • *Spatial Transformation* • *Township Regeneration* • *Formalisation of Rural Towns* • *Rural Schemes* • *Integrated Human*	• Managing Urban Growth and urbanisation • Combat urban sprawl and support infill development • Facilitating Sustainable Human Settlement • Promote adequate provision of social and economic amenities • Support Balanced Urban and Rural Development

		Settlements • *Nodal Hierarchy of Social Facilities*	
5.UTILITIES & INFRASTRUCTURE **6.ECONOMY**	***Principles of Sustainability and Spatial Efficiency and Spatial Justice*** ***Strategic Infrastructure Planning*** ***& Strategic Investment Areas***	*6.4 Strategic Investment Areas* • *Economic Nodes and Corridors* • *Catalytic Projects* • *Human Settlement Mega Projects*	• Facilitate utilisation of municipal resources in an efficient and cost effective manner • Ensure adequate provision of services &infrastructure to support densification and infill. • Promoting balanced development • Ensure strong viable economic nodes • Clustering of various activities at appropriate locations • Reduce poverty, unemployment and spatial inequality • Creating sustainable economic growth and development • Becoming a global metropolis over the next 20 years

6.1 Sustaining our Natural and Built Environment

In line with national legislation and international agreements, the Municipality is committed to a sustainable development path that strives to balance social, ecological and economic priorities.

Our natural systems provide ecosystem services that are often impossible, or extremely costly, to substitute. These include clean air, climate stabilization, rainfall, flood attenuation, marine resources, leisure and recreation areas, fertile and stable soils, food, building materials, amenity and heritage. These ecosystem services are critical in meeting the growth and development needs of the Municipality and all its residents and visitors. In both urban and rural areas, low income people are dependent on these critical and free services provided by natural resources.

It is recognised that natural resources provide the platform for sustainable growth and development for all of eThekwini's residents, poverty alleviation opportunities for the Municipality's most vulnerable households, and help to buffer the negative impacts associated with climate change. The eThekwini Municipality is therefore committed to ensuring the long term sustainability of the natural resource base through concerted efforts in a number of key areas.

By protecting the Municipality's natural environment we ensure that costly replacement interventions, such as storm water protection measures and beach sand replenishment schemes are minimized as much as possible. The economic value of services supplied by eThekwini's ecosystems was estimated at R3.1 billion per annum (2003 estimate), excluding the contribution to the leisure industry. The economic value of the eThekwini coastline (estuaries and beaches) has recently been valued at over R5 billion per annum (2008 estimate).

The eThekwini Municipality seeks to protect specific natural environments, terrestrial and aquatic, within the eThekwini Municipal Area (EMA), in order to secure a sustained supply of ecosystem services (ES) for its residents and visitors. This contributes to sustainable development in the EM's jurisdiction and to give effect to its Constitutional obligations and the requirements of other legislation e.g., the National Environmental Management Act (NEMA) (1998) and the Municipal Systems Act (2000).

The Durban Metropolitan Open Space (D'MOSS) plan identifies those environmental service assets that require protection and management. These assets include rivers, wetlands, estuaries, grasslands, forests and coastal zone resources. To ensure the sustained functioning of ecosystems that provide services, it is essential that we conserve and manage the biodiversity (simply defined as plants, animals and micro-organisms) that live in and shape these ecosystems. The D'MOSS implementation strategy that has been prepared, therefore, has a specific biodiversity focus. The protection and management of Durban's Metropolitan Open Space System will need the sustained and co-ordinated efforts of a range of role-players in order to secure the sustained supply of high

quality ecosystem services for our residents and visitors. The following environmental planning proposals are highlighted as way of ensuring sustainable growth and development:

6.1.1 Managing the Drainage Catchments

The terrestrial and aquatic elements within drainage catchments are linked through complex processes. The condition of these systems are felt downstream and where degraded will impact on the coastal plain. It is vital therefore that the adverse impacts of urban land are minimised and managed.

6.1.2 Conserving the Riverine Systems

A vital component of drainage catchments are the main rivers and their tributaries. These need to be conserved in order to protect the ecological viability of the open space system. The main rivers run in a general west/east direction and their tributaries run in a general north/south or south/north direction. There are various Acts in place that provide guidance for the protection the riverine systems such as NEMA, the Water Act and the integrated Coastal Management Act.

6.1.3 Conserving Functional Ecosystems

There are a number of major open space areas that contain functional ecosystems and which act as key conservation areas “feeding” the open spaces elsewhere in the EMA. Examples of these are as follows:

- Krantzkloof Nature Reserve (associated with the Molweni River)
- Giba Gorge (associated with the Giba Stream)
- Alverstone Conservancy (associated with the watershed between the Sterkfontein and uMhlathuzana Rivers)
- Hammarsdale, Nungwane and uMzinyathi Falls (associated with the Sterkfontein, Nungwane and uMzinyathi Rivers)
- Shongweni Dam and Resources Reserve (at the confluence of the uMlaas, and Sterkfontein inland of this on the uMlaas River.
- Inanda Dam and Resources Reserve (on the Inanda Dam)
- Kloof escarpment above Pinetown and including municipal land, the Nkonka Trust and Tanglewood Nature Reserve Matabetule Plateau adjacent to the Shembe settlement at Ebuhleni.
- Matata or Inanda Mountain,
- KwaZini on the upper parts of the UMdloti River,
- UFudu and Inwabi Plateaus on the Umlaas River,and
- The upper parts of the EziMbokodweni River.

6.1.4 Maintaining Smaller Open Space Fragments

Fragments of open space that may not be directly connected to the broader open space network should be conserved and linked, where possible, to provide critical “stepping stones” for the dispersal of flora and fauna between larger open spaces. These fragments include:

- local parks, sports fields and public gardens,
- private gardens, and
- undeveloped land with ecological significance.

6.1.5 Incorporating High Priority Undeveloped Land

Land with high conservation value should be afforded legal protection and managed to enhance its contribution to the ecological viability of the broader system.

6.1.6 Conserving Visual Features

The visual amenity and character of the within the municipality closely associated with highly visible natural features. These should be conserved for residents and tourists and include components such as:

- Cliffs and escarpments,
- Hilltops and ridgelines,
- Large water bodies,
- Rivers and waterfalls,
- Marine (beaches and rocky shores) and estuarine environments, and
- Coastal dune forests and mangroves.

6.1.7 Eco-tourism and the Green Economy

The D’MOSS and in particular the 18 river valleys in the EMA present an opportunity to achieve greater community awareness of environmental protection, local environmental management partnerships and associated job creation and economic opportunities. Development of eco-tourism within these spaces offers a Green Economy synergy. The Durban Green Corridor Project is an example being developed within the uMngeni Catchment. Initiatives of this sort should be investigated as to means of spatially dispersing economic opportunities throughout the EMA.

6.1.8 Managing Development Impacts

Land uses adjacent to, or upstream from, open spaces can have major impacts on sensitive ecological systems. Activities therefore need to be carefully assessed and controlled to ensure that they do not undermine the ecological viability of the open space system.

6.1.9 Incorporating Climate Change Considerations

At this point it is extremely difficult to incorporate climate change considerations into planning because of the difficulty in representing climate change impacts accurately at a spatial level. In this regard the city wide risk assessment that has just been commissioned provides a possible mechanism of beginning this process through the proxy of risk identification. The recently completed densification strategy and the development of sustainability criteria for spatial planning are current initiatives that will significantly assist with taking climate change considerations into spatial and land use planning. Further input is expected from the Urban Heat Island research and recommendation project. The DCCS Implementation Plans will provide further input into spatial planning guidance.

6.1.10 Threats to D'MOSS and Mitigation

The key environmental assets represented by D'MOSS layer need to be conserved and protected. DMOSS needs to be sensitively integrated with other municipal planning and effectively managed as a way of ensuring environmental sustainability. The SDF review process has allowed for an assessment of threats and impacts to DMOSS to be undertaken and where possible develop mitigation measures as well as literature and research to establish the impacts of development e.g. development guidelines to address these impacts. Consideration will also need to be given to determine how D'MOSS can contribute towards a more socially inclusive lifestyle.

6.1.11 Biodiversity Protection and Socio-Economic Development

Investigate and implement opportunities to link biodiversity protection and socio-economic development. Develop projects where biodiversity protection and socio-economic development take place simultaneously.

6.1.12 Towards a Strategic Environmental Assessment (SEA) for the eThekwini Municipality

The Local Government: Municipal Planning and Performance Management Regulations (2001) require that a Spatial Development Framework (SDF) must contain a strategic assessment of the environmental impact of the spatial development framework. In 2009, eThekwini Municipality initiated its first effort to undertake this Strategic Environmental Assessment (SEA) and appointed a team of local and international experts to work with officials from the municipality to develop a framework and methodology that would allow the sustainability of the municipality's spatial plans to be assessed according to their impacts on the provision of ecosystem services. Since the preparation of the methodology, thinking in the field of global environmental change has advanced significantly and it is felt that the approach suggested needs to be modified to accommodate this.

Recent international work in the environmental sciences (Rockström et al, 2009) highlights the scale of global human impact on the natural environment and points to the fact that in many cases,

environmental thresholds are being exceeded. These natural thresholds (also referred to as 'planetary boundaries') define the 'safe operating spaces' within which global planning and development can take place sustainably.

The 'planetary boundaries' work described above also provides a useful conceptual starting point to guide the work that needs to be done by eThekwini Municipality in articulating environmental baseline information and environmental thresholds so that the sustainability of the city's spatial plans can be assessed. For this reason, eThekwini Municipality has initiated a 'Safe Operating Space' study for the city in order to better understand these issues. It is anticipated that the output of the study will be a combination of spatial data and a decision-making framework which together will provide the structure needed to assess the environmental sustainability of the city's spatial plans. The proposed 'Safe Operating Space' study will provide a critical starting point for the municipality to undertake a SEA.

6.2 Spatial Development Strategy

The inability to access well-located land for low-cost housing perpetuates continued outward expansion and sprawl and the inability to escape poverty. Densification of established, well-located areas (including areas around nodes and along corridors) will promote more efficient use of existing infrastructure and help create a threshold for public transport. The densification strategy to be adopted by the municipality is dependent on the spatial context of development, the site specific characteristics, the capacity of existing infrastructure and what impact that development will have on the environment. Within the densification strategy it is acknowledged that there has to be a balance between compactness and the retention of significant open space to satisfy other social and environmental needs.

The Municipality is striving to ensure that people are brought closer to where they live, work, study and relax. While the Council is committed to bringing people closer to areas of economic activity, the principle of sustainability will be the driver to ensure that people are living in harmony with the environment. Using the Municipal Spatial Development Framework (SDF) and supporting Package of Plans, the Municipality is committed to the zoning of land in appropriate areas in order to increase densities and reduce urban sprawl. The Municipality will also limit urban sprawl and associated development costs through the prioritization of infrastructure provision to support new growth areas.

The spatial strategy to achieve the above is to:-

- Limit and contain the urban development footprint within the Urban Development Line.
- Promote higher "net" residential densities in targeted areas (both greenfields and brownfields) especially within core areas, new growth areas, areas prioritised for infrastructure development and promote densification where feasible along public transport routes.
- Create new residential development opportunities that connect fragmented areas and consolidate urban form around high accessibility routes and spines.

- The “Urban Development Line” concept is used as a tool to curb urban sprawl, promote compaction and achieve associated efficiencies, secure agriculture and upper catchment environmental assets.

6.2.1 The Desired Spatial Form and Growth Path

The economic growth of the eThekwini is mostly based on the port and related activities. The Port Expansion and Back of Port redevelopment are key investment priorities not only to the municipality but to the country as a whole. The expansion of the port is one of the ways the eThekwini can maximise future investment and strengthen its comparative and competitive advantage over other port cities both locally and internationally.

Other key municipal priority projects are proposed in this SDF to include: the **implementation of the IRPTN and supporting land uses, the development of Dube Trade Port and surrounding areas including Cornubia, Cato Ridge industrial area and Mpumalanga/ Hammarsdale.** The development activities within these priority investment areas are linked to support for the port development through a number of economic actions, which includes logistic, tourism and trade.

6.2.2 Infill, Urban Renewal and Densification

The key elements of densification are the promotion of compact, integrated and efficient city form. This can be achieved by limiting urban sprawl, by promoting higher densities, infill and re-development in and around the urban core and other activity nodes and by the promotion of mixed use activity corridors linking otherwise isolated and non-functional areas with a focus of public transport.

Infill refers to development of vacant or under-utilized land within the existing urban areas. In order to promote a more compact urban development, attention should be given to those areas that are not densely developed but are well serviced and centrally located. These gaps within the urban fabric should be identified for priority projects. Vacant land within the central area provides infill opportunities to make use of existing services and to strengthen internal development. Vacant land beyond the central area provides opportunities for linking and integrating peripheral areas.

The different methods for achieving densification can occur through:

- Infill development on vacant or underutilized parcels of land at higher densities. A range of infill processes may include transfer of development rights, land swops, land consolidation, public housing projects and so forth.
- New development on vacant or under-utilized land at higher densities
- Cluster development on large parcels of land through a consolidation process
- Conversion of existing building (sometimes vacant/derelict) to other uses
- Subdivision of large pieces of land to encourage higher densities

- Allowing additional units to be developed on a single piece of land
- Redevelopment of poorly functional areas to encourage and facilitate infill

Infill and densification as proposed above are key strategies contributing to the restructuring of urban environment.

Other key interventions include the following:

- Promote efficiency by curbing low-density sprawl
- Spatial restructuring and promotion of the generation of income-earning opportunities in appropriate places.
- Improving basic infrastructure, provision of supporting infrastructure and services including housing opportunities and adequate facilities.
- Upgrading of existing informal settlements
- Creating of social services, with a clustering of activities in accessible places
- Redressing spatial marginalization through improved transport linkages, creation of public transport hubs and enhanced accessibility to centers of employment
- Maximizing job opportunities/creation through the promotion of local economic development,
- Create appropriate trading areas that are conducive to promoting marketing opportunities for emerging as well as established businesses.
- Attract new investment by creating robust and crime controlled environments
- Promote urban agriculture as part of land use policy

6.2.2.1 Development Intensity

An in-depth analysis of the eThekwini Municipality's current optimal densities and location of development required for sustainable city growth was undertaken as part of the City Densification Strategy in 2013. This work has been a key informant of the Spatial Development Framework, and a summary of the manner in which areas were identified, the locations for the promotion of infill, urban renewal and densification, and an explanation of how and why areas were identified follows below:

Current Density Distribution/Settlement Patterns & Trends

The current distribution of density in the eThekwini Municipality reflects the Apartheid spatial planning legacy and the distribution pattern is similar to other South African cities, namely characterised by:

- a fragmented city;
- limited variations in density levels across the metropolitan area;
- large areas of low density in central, well-serviced locations;
- large areas of high density on the urban periphery;

The overall **metropolitan density of the eThekwini Municipality is 4du/ha**. Gross residential densities in excess of 40du/ha are located in scattered pockets across the city and these are limited to the Durban CBD/Beachfront; Cato Manor, Umlazi and KwaMashu/Inanda.

Density is concentrated within the former townships of KwaMashu, Ntuzuma, Inanda and Phoenix in the north, Umlazi, Lamontville and Chatsworth to the South, Clermont/KwaDabeka and Marianridge in the West and the Durban CBD/Beach, Glenwood, Berea, Cato Manor in the Central areas.

The remainder of the metropolitan area **is settled at gross residential densities of less than 15du/ha**. This includes areas such as Durban North, Westville, Pinetown, Mpumalanga, Tongaat and Verulam.

A band of rural/traditional residential settlement is located on the periphery of the eThekwini Municipality where gross residential densities are below 5du/ha.

Density Analysis: what characterises an optimal density?

The benefits of managing density (and development intensity) are essentially related to two key dimensions; the creation of **sustainable human settlements** and **sustainable resource use (**identified at a City Workshop, 29/08/13). These two dimensions are essentially driving the demand for density imperatives in SA cities, and especially within the eThekwini Municipality.
The linkage between a range of densities (measured in dwelling units per hectare) and different features of residential environments was identified in the City Densification Strategy (2013), and from this assessment an optimum net density range for the eThekwini Municipality of between 35 and 112 dwelling units per hectare (approximately 150 to 450 persons per hectare) was identified.

At these densities, the benefits for the city identified in the City Densification Strategy include:

- the provision of public transportation would be more viable;
- capital outlay on roads would be low;
- capital outlay in utilities would be low;
- modes of mobility support both private vehicles and public transportation;
- the choice of housing would be high for densities up to 50 units per hectare, but would decrease for higher densities;

The costs identified in the City Densification Strategy include:

- the lack of privacy and noise become problematic at densities as low as 25 units per hectare; at higher densities, serious consideration should be given to design of units and defensible space to optimise privacy and ensure ownership;
- the cost of internal access such as passages and stairs would be high, especially for densities higher than 80 units per hectare;
- there would be a significant need for open space and amenities in this environment;

A number of other design attributes occurring at high densities described in the City Densification Strategy include:

- entrances to dwelling units would probably front onto common ‘indefensible’ passages;
- access to ground level is ‘indirect’

- housing would be provided in a highly urban or inner-city environment;
- parking would be detached from units.

All of the above factors need careful planning and management, and this would need to occur at a precinct or site level.

Why Managing Density is Important in the eThekwini Municipality

Development scenarios prepared for the eThekwini Municipality in 2010 indicate that the population of the metropolitan area will grow from 3,5 million people in 2007 to 4,4 million by 2030. **The eThekwini Metropolitan region would therefore have to accommodate an additional 775,000 people**. This represents an average growth rate of 1.1%p.a. (SSI, 2010).

The scenarios further indicate that the distribution of this new growth would be 40% to the north and 20% each to the central, outer west and southern regions of the eThekwini Municipality.

This information is particularly valuable in informing where development needs to be accommodated within the metropolitan area and begins to allude to how the **application of appropriate density controls could impact on the spatial form of the city and assist in accommodating population growth**.

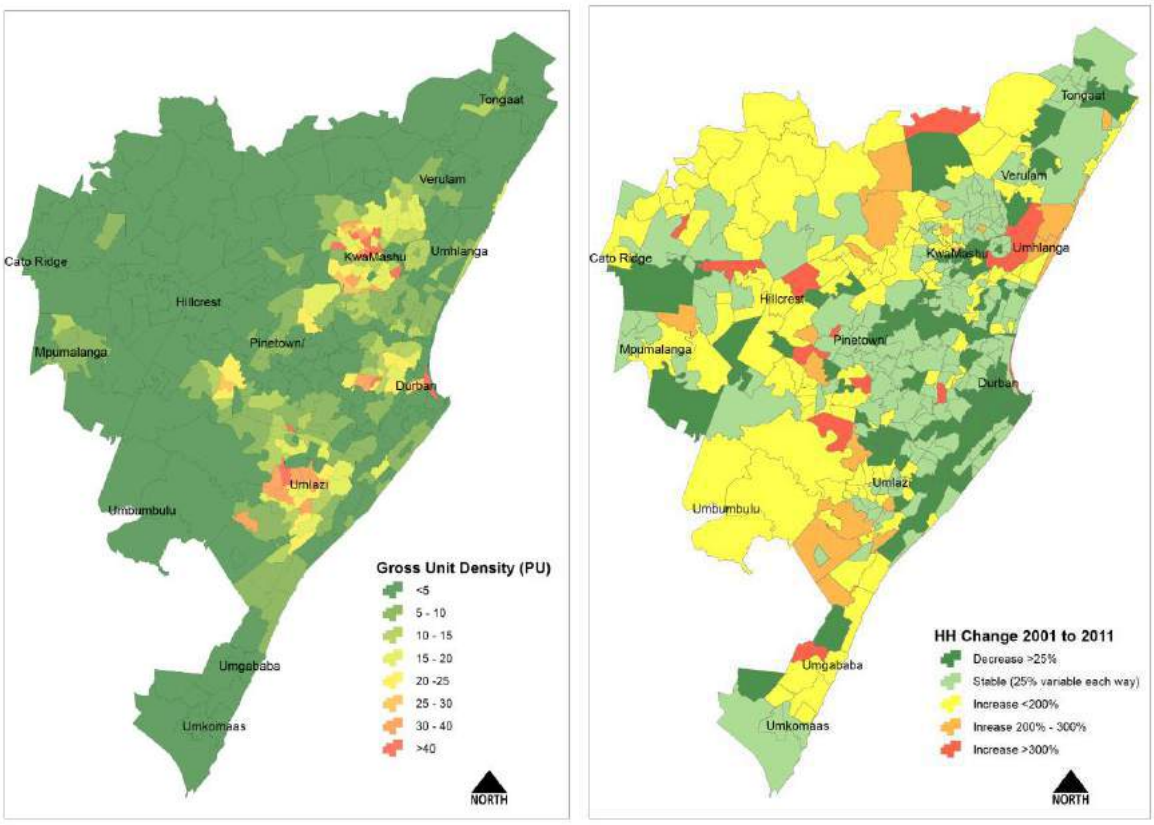
The development scenarios are intended to provide an indication of the order of magnitude of, and spatial distribution, of population growth that the eThekwini Municipality would have to accommodate by 2030.

Based on an average household size of 4 persons per dwelling unit, it was determined in the development scenarios that an additional 193,000 housing units would need to be provided. Assuming all these units were accommodated in new growth areas (greenfields) and dependent on the density of each new settlement, between 1,287 and 12,867 hectares of land would be required.

It is evident in comparing the eThekwini Municipality's density pattern of 2001 to that of 2011 that there has been a change in the distribution of density.

The following map shows the percentage change in gross residential density for the metropolitan area:

- densities within the traditional suburbs of Berea, Montclair, Pinetown, Phoenix, Westville (urban core) etc have remained stable.
- density in the rural and traditional periphery has doubled
- densities have increased threefold in newer development areas such as Hillcrest, Mt Edgecombe, Umhlanga and Welbedacht.
- density along the backbone of the IRPTN has in some areas decreased, or has remained stable.



The reasons for this pattern provide invaluable insights for the preparation of a strategy to manage density and encourage spatial transformation:

- The rural areas in particular offer a 'soft' landing for migrants into to the municipal system. Here the **barriers to acquiring land to settle on, and the regulations regarding the development of land, are far less onerous than within the formal urban system**. There is also anecdotal evidence of residents choosing to invest in rural areas where property taxation and servicing costs are minimal compared to land under formal land legal administration.
- Developing in rural/tribal areas is a **cultural/lifestyle choice**.
- **Municipal investment** in servicing backlogs has been directed into areas on the urban periphery and rural/tribal areas over the past decade.
- **Corporate decisions by major land owners** e.g. Tongaat Hulett Developments etc. to transform former sugar cane land to urban development have resulted in a plethora of new housing opportunities, with a **particular emphasis on high quality managed and secure neighbourhoods** that are under threat in existing neighbourhoods. This has resulted in a push of residents to the edge.
- The municipality's housing programme has been **unable to secure well-located land at reasonable prices** within the urban core and has been forced to deliver large-scale greenfield housing projects on the periphery of existing settlements.

Whilst the overall gross residential density of the eThekwini Municipality has increased, the predominant nature of residential development has been low to medium density despite a policy environment that promotes higher density development In this regard, a number of development

patterns are evident in the eThekwini Municipality, each of which is a product of an attraction (driver) for the pattern, or a constraint.

The relevant principles guiding the residential densities with the above integrated approach are:

- There should be a **hierarchy of residential densities** to meet market needs for a diversity of housing types;
- Residential densities should be **commensurate with what the existing and planned infrastructural and environmental capacities can cope with**;
- Developments should be placed in such a way to **encourage public transport and reduce the travel demand**; and as such, higher density residential developments should be located near rail stations and major public transport interchanges wherever possible to capitalize development opportunities and to reduce reliance on road based vehicular travel.

There could be a decreasing **gradation of residential development densities** away from rail stations and public transport interchanges;

- Higher density residential developments outside major transport corridors or the catchment areas of a rail station could be considered where there will be **adequate feeder services** from the rail stations and public transport interchanges;
- It would be more compatible to adopt a low density for residential developments which may be located close to environmentally sensitive areas e.g. wetland, conservation areas etc.

Density Target Areas

The following **density targets areas are provided as a guideline to direct and manage density in and across the municipal area**. The density targets have been derived from international and national best practice with respect to transit-orientated development, development that supports transportation and social facilities thresholds and that also respond to the natural environment.
Conceptually, the density target areas indicate:

- where higher residential density development should be **actively promoted** i.e. town centres; in proximity to major transport facilities.
- where residential density should be **managed** i.e. residential suburbs.
- where residential density should be **actively discouraged** i.e. rural and traditional areas.

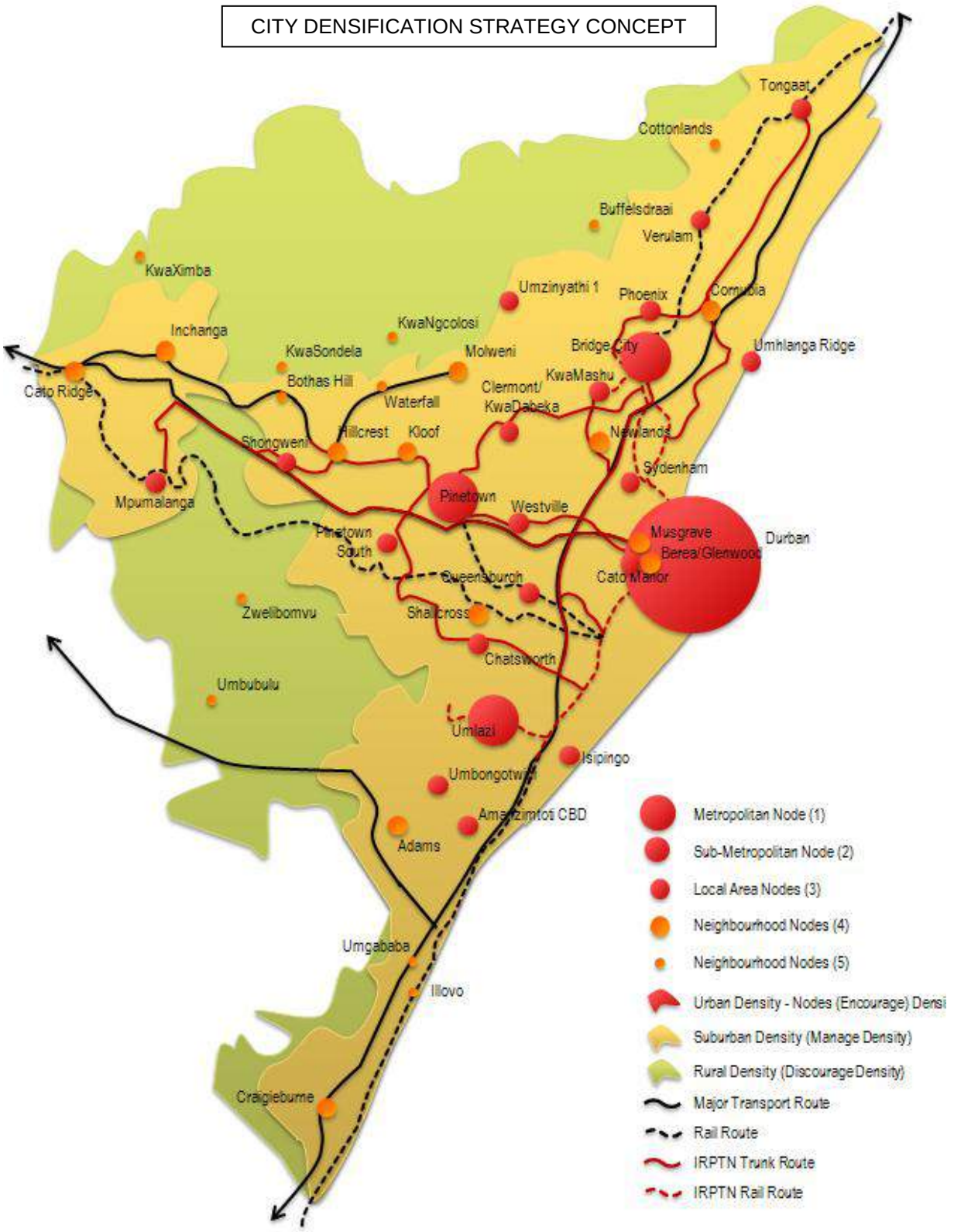
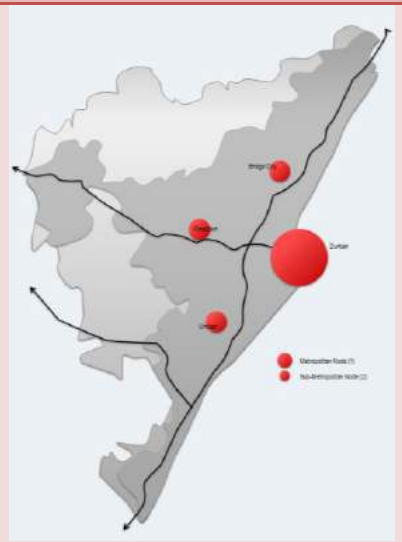
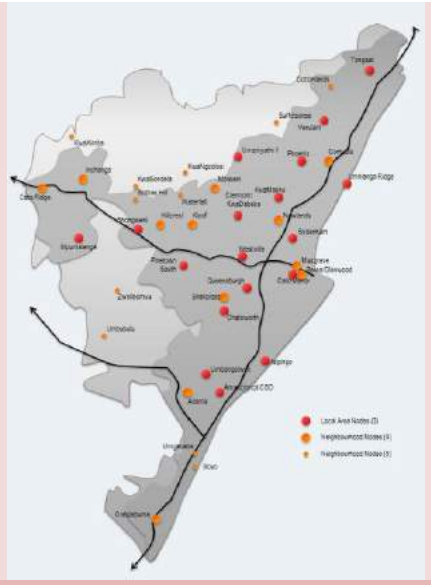


Figure 83: City Densification Strategy Concept

DENSITY TARGET AREAS

	WITHIN AND IN PROXIMITY TO METROPOLITAN AND SUB-METROPOLITAN NODES	TARGET CONDITIONS	DENSITY GUIDELINE (MIN)
	At the intersection/ convergence of city-scale development, connector and activity routes including public transport interchanges – good access on the broader scale. May form an expanded part of an activity route but requires the inclusion of a public transport interchange. Characterised by major concentrations of commercial/ business development, higher-order services, facilities and institutions, mixed-land uses and higher densities (including higher density zones). Pedestrian-orientated within the identified centre area with interrupted and slow movement flows. Examples: Durban, Pinetown, Umlazi, Bridge City	Generally within and abutting the defined node or central business district area. Particularly in the vicinity of public transport routes, interchanges and stations, near social facilities and public open space precincts and where there is a diverse concentrated mix of land uses, activities and services. Level 1* Node: Within 5km Level 2* Node: Within 2km * Level of Nodes determined by eThekwini Accessibility Mapping (2011)	Net Density of 80-250du/ha (160-1,000P/ha)
	WITHIN AND IN PROXIMITY TO LOCAL AREA AND NEIGHBOURHOOD NODES	**TARGET CONDITIONS**	**DENSITY GUIDELINE (MIN)**
	Clustering of activities in a local area/neighbourhood, or as part of an activity street, with good access (including public transport). Comprises of a range of land uses and services such as shops, restaurants, offices, banks, post office, community centre, municipal offices, hospitals, clinics, institutions, station, bus/taxi stops, garages, parking areas and/or public spaces/facilities. Includes higher-density zones. Largely focussed on a range of linked buildings, land uses and spaces. Examples: Tongaat, Hillcrest, Verulam, Umhlanga Ridge Musgrave, Westville, Broadway, Clermont, Chatsworth, Mpumalanga , Bridge City, Kwa-Mashu	Generally within and abutting the defined node, especially the multifunctional part of the node. articularly in the vicinity of public transport routes, interchanges and stations, next to social facilities and public open space precincts and where there is a diverse and concentrated mix of land uses, activities and services. Level 3 & 4 Nodes: Within 800m Level 5 Node: Within 400m * Level of Nodes determined by eThekwini Accessibility Mapping (2011)	Net Density of 40-80du/ha (160-320p/ha)



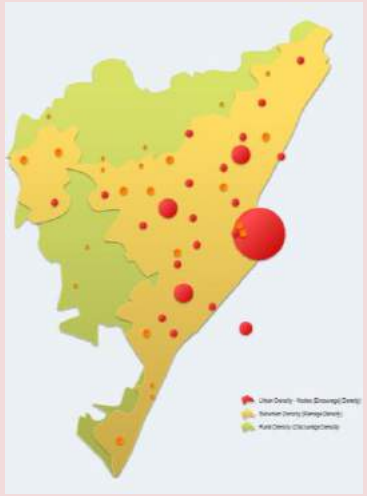
WITHIN AND IN PROXIMITY TO RAIL OR MASS TRANSIT STATIONS	TARGET CONDITIONS	DENSITY GUIDELINE (MIN)
At the intersection/convergence of city-scale development, connector and activity routes including public transport interchanges – good access on the broader scale. May form an expanded part of an activity route but requires the inclusion of a public transport interchange. Examples: Berea Station, Bridge City, Umlazi	In the residential areas that are within 2km proximity to major public transport facilities and within 400-800m, of all existing and proposed rail stations and sub-metropolitan bus or taxi ranks	et Density of 80-150du/ha 320-600p/ha)



WITHIN AND IN PROXIMITY TO DEVELOPMENT SPINES	TARGET CONDITIONS	DENSITY GUIDELINE (MIN)
Major city-wide or district movement routes (class 2 or 3 roads) including line-haul public transport or IRPTN along which there may be interrupted flows at traffic lights and intersections. Express ways (at grade) with fast-moving traffic sections may form part of the development route. Generally, very limited direct access but with development and commercial/ business complexes linked to parallel and connecting side roads (feeder systems). Could include short stretches of activity route type development, mixed land uses and higher-density areas. Examples: MR577, Umhlanga Rocks Drive, R102 (North Coast Road), M13	Within 800m of points of direct access, transport intersections and interchanges, places of intense mixed-use and nodal activity (activity route character) and next to or part of commercial complexes.	Net Density of 80-150du/ha

WITHIN AND IN PROXIMITY TO ACTIVITY SPINES	TARGET CONDITIONS	DENSITY GUIDELINE (MIN)

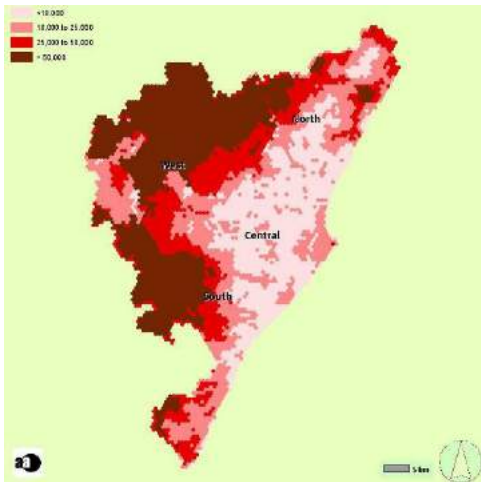
	Significant and/or metro-wide to district activity route directly linked to development including centres/nodes, mixed land uses, commercial/business developments and light industry, institutions, social facilities (including recreation) transport interchanges and higher-density development (including higher density areas). Intermittent movement patterns incorporating public transport (including commuter rail). Direct access en route with interrupted movement flows, especially at bus/taxi stops and at traffic lights and intersections. Pedestrian-orientated in sections. Examples: Brickfield Road, Sparks Road	Generally near the activity route but particularly near public transport interchanges and stations, mixed-use areas and concentrated activity – business/ commercial nodes and at public institutions and facilities including open space. In the residential areas that are within 2km proximity to major public transport facilities and within 400-800m, of all existing and proposed rail stations and sub-metropolitan bus or taxi ranks	Net Density of 80-150du/ha (320-600p/ha)

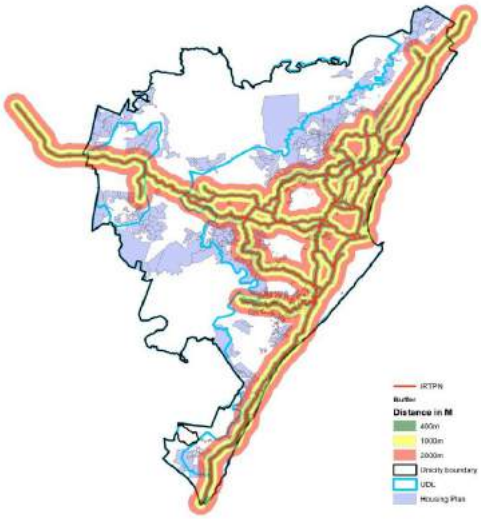
	METROPOLITAN	TARGET CONDITIONS	DENSITY GUIDELINE (MIN)
	Broad guidelines applicable to the metropolitan area. These must be interpreted in terms of appropriate levels of planning and should not be considered a blanket density control.	All locations where permitted in terms of existing rights or an application for rezoning/ consent/departure/sub-division, Second dwellings and other forms of development acceptable if no negative impact on the character of the area and existing rights.	Urban: Net Density of 40-80 du/ha Suburban: Net Density of 15-40 du/ha Rural: Net Density of 1-15 du/ha

INTERFACE WITH UDL AND ENVIRONMENTALLY SENSITIVE AREAS	DENSITY GUIDELINE (MIN)
Within 400m proximity to the Urban Development Line – must take cognisance of local context.	Net Density of 5-15du/ha

Priority Housing zones and Integration Zones

In parallel to the City Densification Strategy, the eThekwini Human Settlements Housing Sector Plan produced a Spatial Housing Plan that identified opportunities to prioritise higher density subsidised housing and rental housing solutions in appropriate areas (Housing Sector Plan, 2011).
As part of the criteria used in this prioritisation model, key were the proximity of areas in need to public transport trunk routes and access to services determined by the cost surfaces model. See maps below:





Approximately 86 projects were identified within 400m of public transport routes, and 48 between 400m and 1km of public transport routes. These, therefore, were identified as the priority projects for densification and intensification initiatives.

Integrated City Development Grant
Following on from the City Densification Strategy, and in response to the Integrated City Development Grant (ICDG), the Spatial Development Framework was required to establish integration zones across the municipal area within which to spatially target investments.

The objective of the ICDG is to support the development of more inclusive, liveable, productive and sustainable urban built environments in metropolitan municipalities. The grant provides a financial incentive for metropolitan municipalities to integrate and focus their use of available infrastructure investment and regulatory instruments to achieve a more compact urban spatial form.

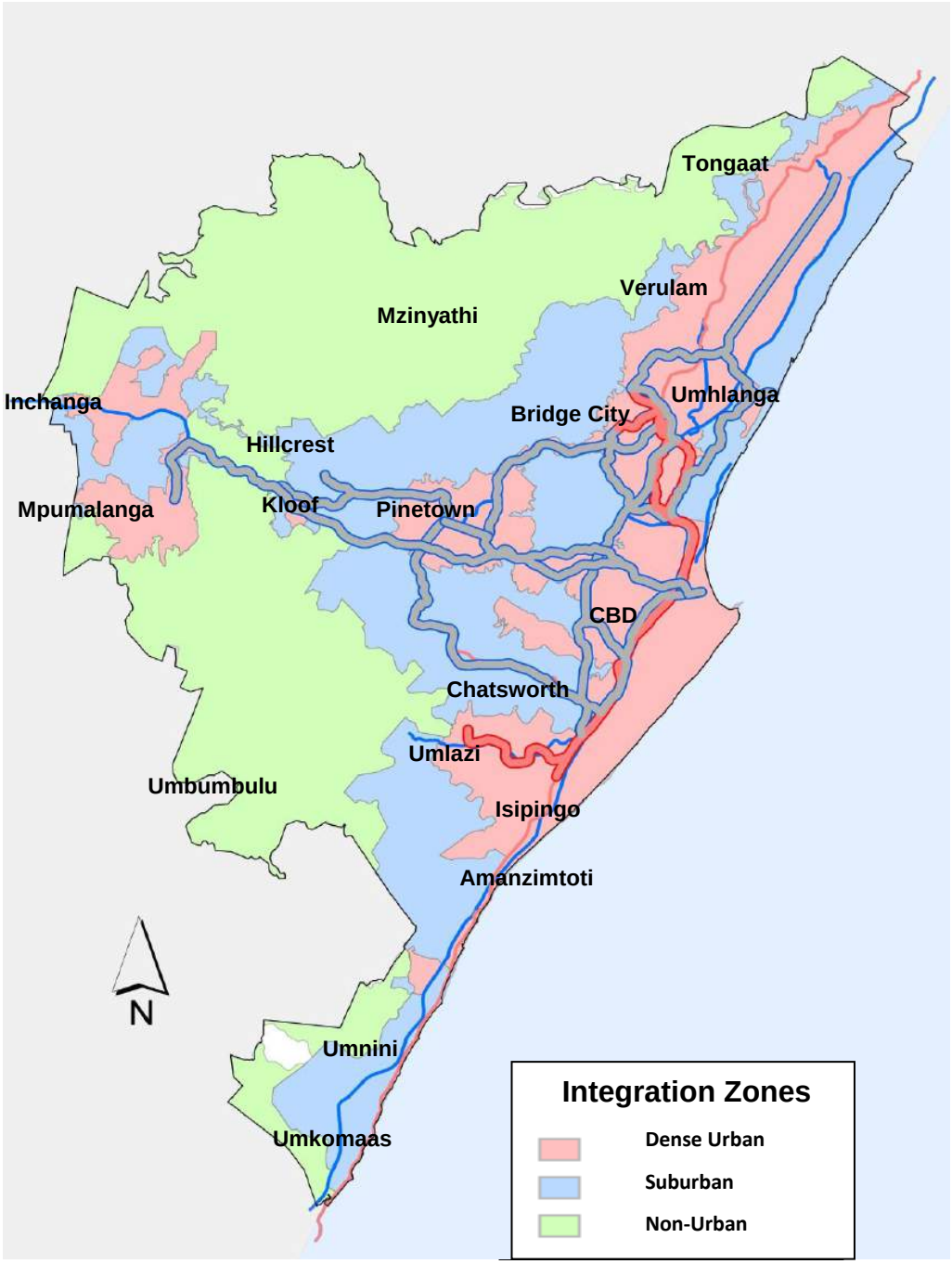


Figure 84: City Integration Zones

6.3 Improving Accessibility

Improving Accessibility does not necessarily mean the provision of new roads but rather improving the availability and accessibility to transport. This will enhance the accessibility to various areas within the municipality and beyond. Therefore the city is embarking on a world class public transport system initiative known as GO!Durban that will be at the forefront of the City's transport planning. It is also imperative that the basic function of roads as classified within the Municipality be enforced to the benefit of all road users. This will allow for acceptable mobility and accessibility between origin and destinations on mobility routes and safe access on activity roads. It is also imperative that the basic

function of roads as classified within the Municipality be enforced to the benefit of all road users. This will allow for acceptable mobility and accessibility between origin and destinations on mobility routes and safe access on activity roads.

The hierarchy of roads identified, is to facilitate movement within the Municipality and to ensure that people have access to jobs and other opportunities within the municipal area. In order for the Municipality to perform optimally the overlapping systems of movement and activity need to be accessible to all communities, they need to operate efficiently and be sustainable. To achieve this, the municipality is implementing a fully integrated and efficient public transport system. To ensure mobility and accessibility is achieved on the road network, the city has created a road classification hierarchy. The road classification as shown below has been developed and is indicative of the appropriate functions different the roads play.

6.3.1 Road Classification

Table D: Rural Access Management Requirements and Features

Basic Function	Description		REQUIREMENTS				TYPICAL FEATURES (use appropriate context sensitive standards for design)								
	Class No (R_)	Class name	Design typology	Route no.	Access to property	Parking	Speed km/h	Inter-section control	Typical cross section	Roadway / lane width	Road reserve width	Public transport stops and ped. xing	Pedestrian footways (non-surfaced)	Cycle lanes	Animal drawn vehicles
Mobility	1	Principal arterial	Expressway	Yes (N)	Not allowed*	No (off road rest stops allowed)	120	Grade separate or priority to through	2 / 3 / 4 lane, surfaced shoulders, climbing lanes	3.5 - 3.7 m	80 - 80 m (62 m)	No	No	No	No
	2	Major arterial	Highway	Yes (R, 2 or 3-digit, or N)	Not allowed***	No (off road rest stops allowed)	100-120	Priority or grade separate	2 / 3 lane, surfaced shoulders, climbing lanes	3.5 - 3.7 m	40 - 70 m (48 m)	As required	Isolated	Recreational, on shoulder	No
	3	Minor arterial	Main road	Yes (R, 3 or 2-digit)	Not allowed***	No (off road rest stops allowed)	80-100	Priority, roundabout	2 lane surfaced, gravel shoulders	4.0 m	30 - 50 m (30 m)	As required	Isolated	Recreational, Widen roadway by 1.2m both sides	Widen shoulder
Access / Activity	4	Collector road	Collector	Allowed, T (tourist) or D (district)	Yes	No (off road edge or in lay-byes / viewpoints)	80 -100	Priority	2 lane surfaced or gravel, gravel shoulders	3.5 m	25 m	As required	Rare, isolated	Widen roadway	Widen shoulder
	5	Local road	Farm road	Allowed, T (tourist) or L (local)	Yes	No (on verge or shoulder)	60 - 80	Priority or none	1 / 2 lane gravel, 800 mm concrete strips in environmental areas		20 m	As required	Rare	Use roadway	Use roadway
	6	Walkway	Track or pathway	No	Yes	n/a							Not constructed, formed by use		

* Access to properties sufficiently large to warrant a private intersection / interchange can be considered if access spacing requirement met and there is no future need for a public road.

** Low volume farm gate and tourist access (less than 10 vehicles per day) can be considered if no alternative exists.

Table E: Urban Access Management Requirements and Features

Basic Function	Description		REQUIREMENTS					TYPICAL FEATURES (use appropriate context sensitive standards for design)								
	Class No (U_)	Class name	Design typology	Route no	Intersection spacing	Access to property	Parking	Speed km/h	Intersection control	Typical cross section	Roadway / lane width	Road reserve width	Public transport stops and ped. xing	Pedestrian footways (construction)	Cycle lanes	Traffic Calming
Mobility	1	Principal arterial	Freeway	Yes (MR/N)	2.4 km (1.6 km - 3.6 km)	not allowed	No	100-120	Interchange	4 / 6 / 8 lane freeway	3.3 – 3.7 m lanes	80 – 120 m (80 m)	No	No	No	No
	2	Major arterial	Highway	Yes (MR)	800 m (± 15%)	Not allowed***	No	80	Co-ordinated traffic signal, interchange	4 / 6 lane divided, kerbed	3.3 – 3.6 m lanes	36 - 62 m (45 m)	Yes at intersections	Off road	Yes – widen by 1.2 m	No
	3	Minor arterial	Main road	Yes (MI)	800 m (± 20%)	Not allowed***	No	70	Co-ordinated traffic signal, roundabout	4 lane divided or undivided, kerbed	3.3 – 3.6 m lanes	26 – 40 m (30 m)	Yes at intersections	Yes	Yes – widen by 1.2 m	No
Access / Activity	4a	Collector street, commercial	Commercial major collector	No (N for semi-mall'ng)	> 150 m	Yes (large properties)	Yes if conditions allow	60	Traffic signal, roundabout or priority	4 lane, median at ped. xing., boulevard, CBD one-way		20 – 40 m (25 m)	Yes, at intersections or mid block	Yes	Yes, widen lane or on verge	Median for peds, curved roadway
	4b	Collector street, residential	Residential minor collector	No	> 150 m	Yes	Yes if appropriate	50	Roundabout, mini-circle or priority	2 / 3 lane undivided	9 – 9m roadway, = 3.0 m lanes	16 – 25 m (20 m)	Yes anywhere	Yes	Yes, in road or on verge	Raised ped. median, narrow lanes
	5a	Local street, commercial	Commercial access street	No		Yes	Yes if conditions allow	40	Priority	2 lane plus parking		15 – 25 m (22 m)	If applicable, anywhere	Normally yes	Use roadway	Raised ped. crossing
	5b	Local street, residential	Local residential street	No		Yes	Yes on verge	40	Mini-circle, priority or none	1 / 2 lane roundable kerbs	5.0 – 6.6 m roadway (two way)	13 – 18 m (14 m)	If applicable, anywhere	Not normally, pedestrians can use roadway	Use roadway	Yes, but should not be necessary
	6a	Walkway, non-motorised priority	Pedestrian priority	No	500 m maximum	Yes	Yes if parking lot or vehicles?	15	None, pedestrians have right of way	(bollards)			If applicable, anywhere	Yes or use roadway	Rare	Yes
	6b	Walkway, non-motorised only	Pedestrian only	No	500 m maximum	Yes	No vehicles	peds. 60 m / minute	None, pedestrian signal	Block paving		6 m		Yes	Yes	

*Access to properties sufficiently large to warrant a private intersection / interchange can be considered if access spacing requirement met and there is no future need for a public road.

**Partial and marginal access at reduced spacing allowed to relieve congestion, reduce excessive travel distance or remove the need for a full intersection

6.3.2 Proposed Transport Linkages

The spatial focus in relation to the movement system is to improve transport linkages at a, metropolitan and local level by identifying future network linkage opportunities. Improving transport linkages includes upgrading existing links, constructing new links and integrating different modes of transport (rail, bus, taxi, and non-motorised transport). Some of the proposed linkages (as identified below) help to integrate areas of need to wider metropolitan opportunities. Proposed linkages for the EMA for that are within the next five years are as follows:

- N2 - Mt Edgecombe IC
- MR577 from Duffs Road to KwaDabeka providing a much-needed crosslink from the north to the Pinetown area
- Network linkages to Cornubia and internal roads.
- Sibaya Roads
- M7 - Bluff Rd to N2
- N2 - M7 IC
- M1 - Chatsworth to Pinetown
- M34 - Stapleton Corridor
- M10 - Bellaire M7 Link

6.3.3. Major Road Infrastructure Proposals for Port of Durban and Dig Out Port

The following map reflects the proposed major road proposals for Port of Durban

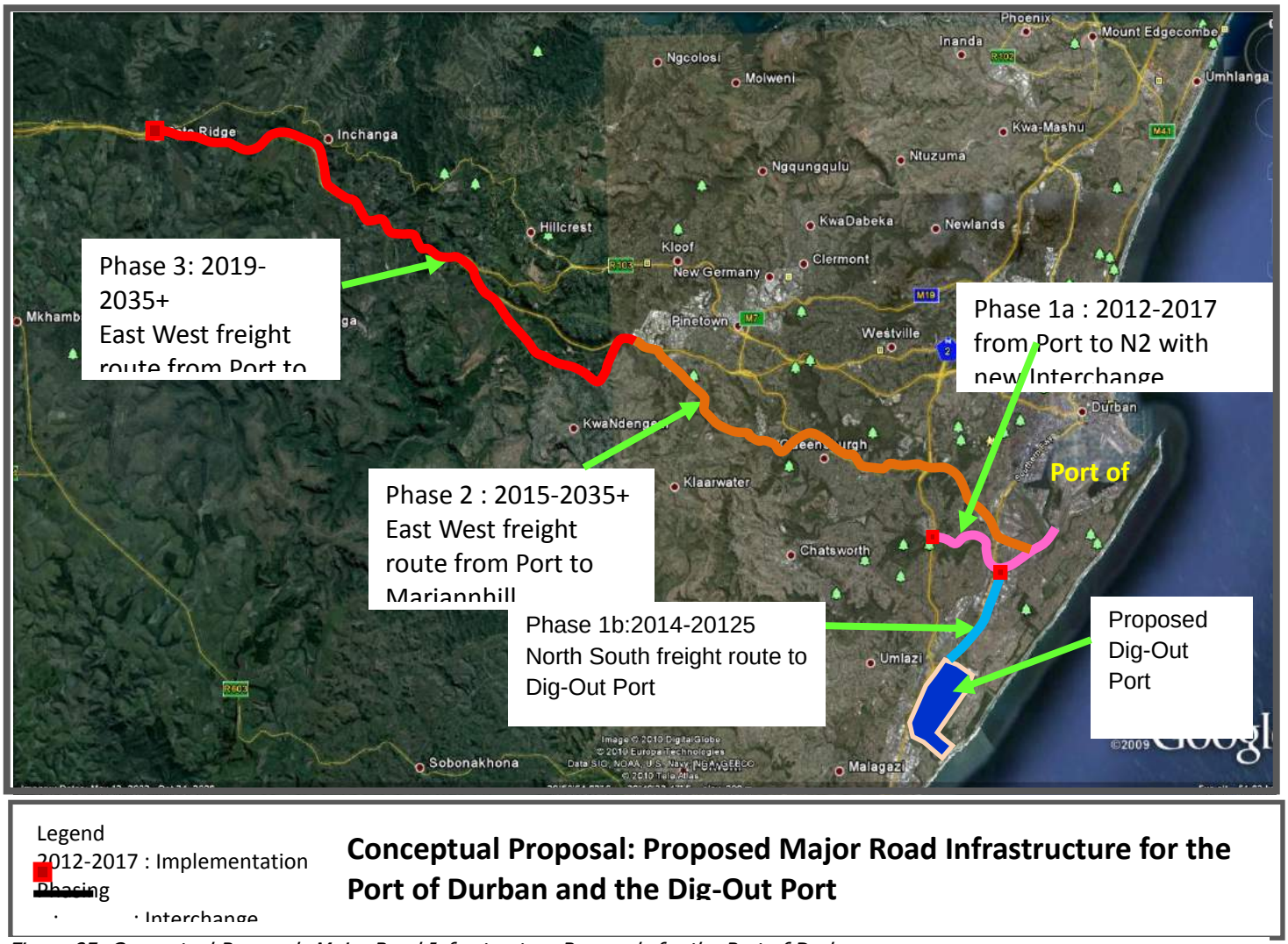


Figure 85: Conceptual Proposals Major Road Infrastructure Proposals for the Port of Durban

6.3.4 Integrated Public Transport Network (IRPTN)

The overall goal for transport in eThekwini is to implement an effective, efficient, sustainable and safe public transport system. To this end and in line with legislative provisions, the eThekwini Transport Authority (ETA) has developed an Integrated Rapid Public Transport Network (IRPTN) plan for the entire eThekwini Municipal area. The IRPTN "wall to wall" plan defines the ultimate (2025) public transport network for the Municipality to ensure that the incremental implementation of the IRPTN achieves the following established objectives:

- **Equity of Access to Opportunity:**
 All inhabitants of the Municipality regardless of income levels, disabilities, etc. should have and enjoy quality access to various opportunities (live, work, play) within eThekwini;

- **Reduce the overall impact of transport on the environment:**
 The IRPTN should aim to have a net reduction in carbon emissions related to motorised travel;
- **Promotion of a liveable city:**
 Apart from providing a transport solution that aims to offer all commuters an escape from congested roadways, the infrastructure of the IRPTN as well as the precincts the network servers are to be designed in a manner that accommodates non motorised transport modes and achieves urbanity;
- **Spatial Structure:**
 The IRPTN is intended to be a major structuring element of the eThekwini Municipality. Integrated land use-transportation planning ensures that the IRPTN would help rectify the imbalances created by historic apartheid type planning practices;
- **Quality of Service that is Acceptable to Car Users:**
 Apart from catering for the needs of captive public transport users, the IRPTN should be of a quality that private vehicle users would find acceptable;
- **Have a Positive Impact on the City's Economy**
 Apart from being operationally efficient to ensure sensible operational expenditure, the various secondary economic opportunities created by the system should contribute to the city's economy.

Systems Concept: The integrated network comprises a system of trunk, feeder and complementary routes that have been designed to respond to the resultant demand of the existing and forecasted activity patterns in accordance with the Municipality's Spatial Development Plan. This network will be complemented by connecting bus/minibus services and local services to key nodes on the trunk alignments.

This system will include, in terms of a defined programme, various forms of priority infrastructure for bus trunk services including: transfer stations; park and ride facilities; information, communication technologies; fleet; non-motorised transport facilities; and depots and control centres.

The ultimate IRPTN plan for the Municipality comprises some 250km of trunk public transport corridors of which some 60km are rail based. The full IRPTN network will be within 800m (10-15min walk) of more than 85 percent of the Municipality's population.

The trunk corridors are described below and are shown in Figure below:

- **Corridor C1: Bridge City to CBD via KwaMashu:**

C1 provides capacity between two major centres of employment and other activity. This high frequency BRT service provides connections into the CBD to widen access to employment. C1 forms part of the Phase 1 network in view of its strategic importance.

- **Corridor C2: Bridge City and KwaMashu via Berea Road to Umlazi and Isipingo:**

The main rail route will be upgraded to enable a more intensive, reliable and higher capacity service to be operated. Infrastructure improvements will allow headways of up to three minutes to be

operated with new trains being capable of carrying 2,000 people. A number of stations are in place, many of these stations will also be served by other IRPTN services, enabling interchange and a wide range of journey opportunities. Rail services continue further south to Isipingo and beyond.

The branch serving Zwelethu, KwaMnyandu, Lindokuhle and Umlazi is well used and would form part of C2. In contrast, the branch to Havenside, Bayview, Westcliff, Chatsglen and Crossmoor is lightly used, it is planned to provide new services in C5 to address demand in this corridor. To the north of C2, the line continues to Phoenix, Mount Edgecombe, Tongaat and beyond but is relatively lightly used. The loop serving Avoca, Red Hill, Greenwood Park and Briardene is a single track line which supplements the main line from KwaMashu.

- **Corridor C3: Bridge City to Pinetown**

C3 provides new connections between two major centres in a corridor that is not easily traversed at present. Interchange opportunities will be important both in the Pinetown area (with C6 and C7 or east- west movements) and at Bridge City (C1, C2, C4 and C9). C3 forms part of the Phase 1 network.

- **Corridor C4: Bridge City to Mobeni and Rossburgh**

C4 offers new services from Bridge City via the N2 avoiding the need to transfer at Warwick Interchange with the route splitting to serve both Rossburgh and Mobeni.

- **Corridor C5: Chatsworth to CBD**

C5 provides direct services from the CBD and Warwick to Chatsworth town centre. This will be a high frequency BRT service although there is an option to provide light rail services using former heavy rail alignments and platforms and on- street Sections to access Chatsworth town centre. This would serve the area more effectively than the current heavy rail alignment.

- **Corridor C6: Hammarsdale and Pinetown to Warwick**

C6 provides east- west services linking Pinetown to Warwick Interchange with possible variants to serve more than one route within the corridor. Some services will be extended to Hammarsdale in the west as an improved means of accessing Mpumalanga and the rural area with appropriate feeder services.

- **Corridor C7: Hillcrest to Chatsworth**

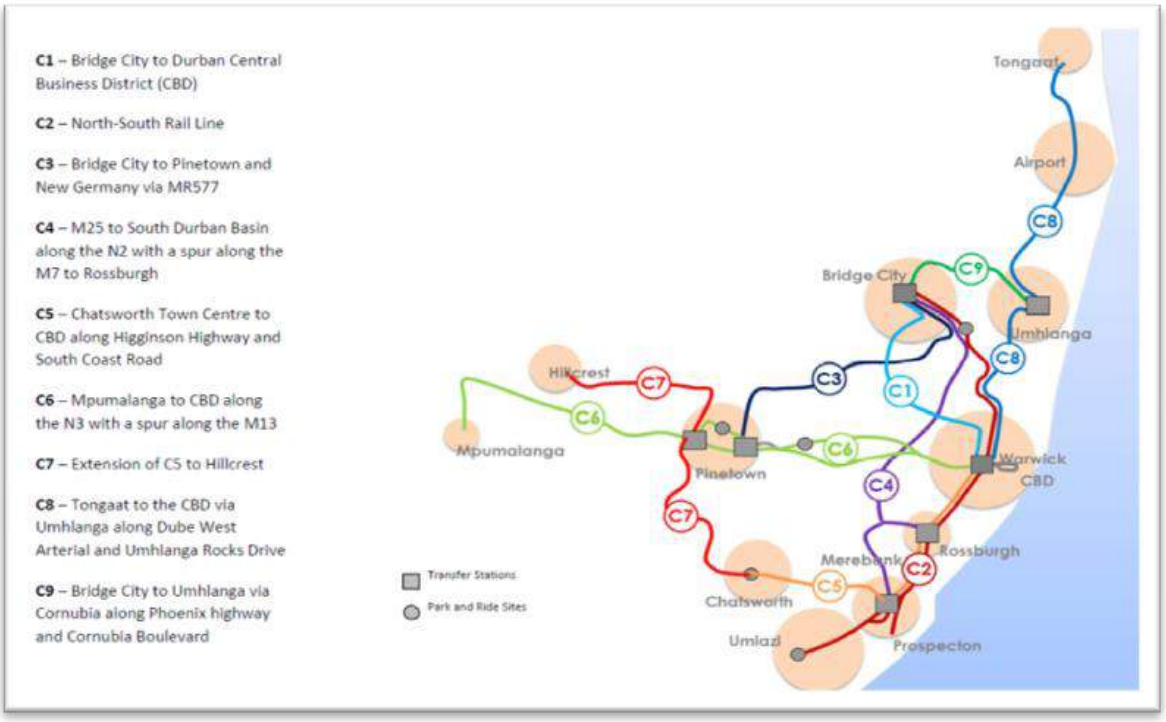
C7 was originally conceived as part of C5 but separating this part of the network reduces the operating distance and links Hillcrest with Pinetown (connecting with C6 to Warwick) and Chatsworth town centre as.

- **Corridor C8: Tongaat and Airport to Umhlanga and Warwick**

Rail services are available to Tongaat but an alternative route would be provided by C8. This would divert to serve the airport and Umhlanga town centre and provide direct access into Durban. This corridor is expected to experience considerable growth as development takes place and also presents a strong public transport presence for airport users and workers.

- **Corridor C9: Bridge City to Umhlanga**

C9 links the growth areas of Umhlanga and Bridge City. C9 forms part of the Phase 1 network in that it links key employment and expanding development areas.

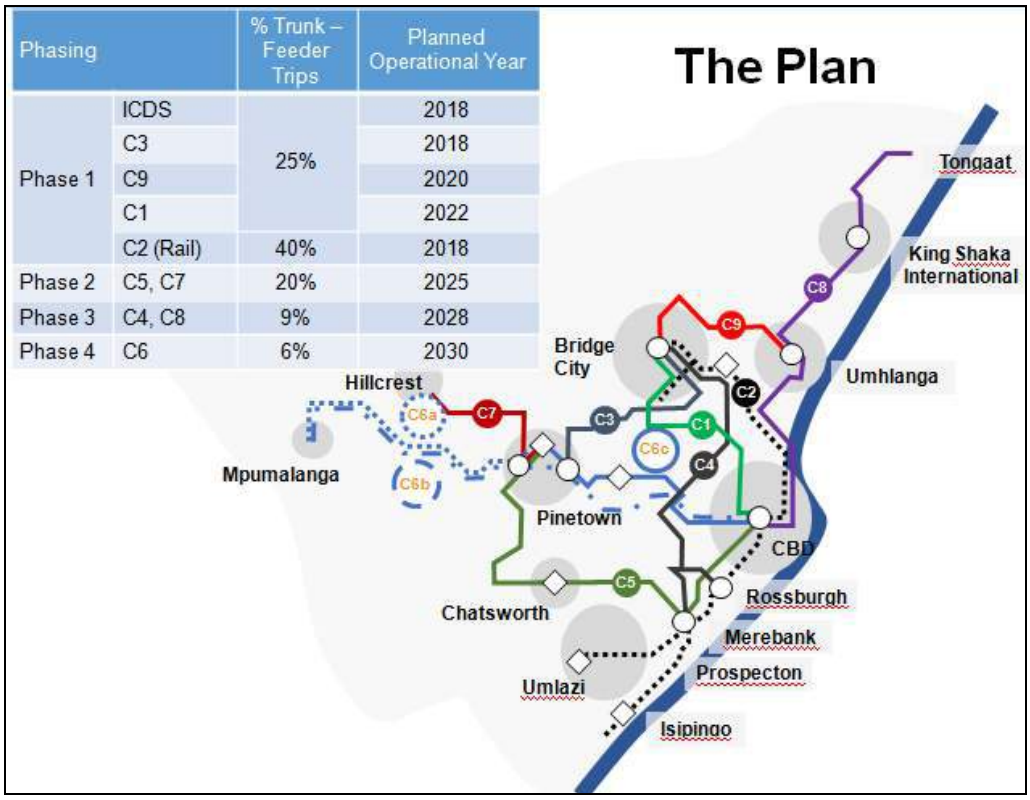


Source: eThekwini Municipality, Procurement and Infrastructure Cluster

Figure 86: IRPTN Trunk Corridors

6.3.5 IRPTN Phasing Plan

The intended trunk route phasing plan is shown diagrammatically in the Figure below:



Source: eThekwini Transport Authority

Figure 87: IRPTN Trunk Route Phasing

Phase 1: Of the 190km of road based trunk corridors, 60km are planned for the Phase 1 implementation of the network by the first quarter of the 2015 financial year. Phase 1 will comprise of 3 Bus Rapid Transit (BRT) routes and 1 rail corridor. The 3 BRT routes are: C1 Bridge City to Warwick, C3 Bridge City to Pinetown, C9 Bridge City to Umhlanga Corridor and the rail corridor: C2: Bridge City and KwaMashu via Berea Road to Umlazi and Isipingo.

The Phase 1 network will accommodate approximately 25% of the Municipality's total trunk public transport demand on road based IRPTN services with a further 40% being accommodated by the trunk rail network as part of Passenger Rail Association of South Africa (PRASA) implementation plans. This approach ensures recognisable benefit to the maximum number of users in the shortest period of time for the given level of investment required.

The following steps will take the public transport initiatives on a sustainable trajectory;

- Firstly, building on restructuring proposals to date, by developing a programme for the phased implementation of an Integrated Rapid Transit Network (IRTN) with public transport service and support system plans across the whole of the eThekwini Municipality;

- Secondly, to develop a comprehensive business plan and corporate structure plan with documentation for pro forma public transport service contracts and related support systems, service contracts;
- Thirdly, to take the corridors adopted as part of the first phase of the implementation programme and develop the proposals in adequate detail to provide firm cost estimates for infrastructure and support systems;
- Funding for both the infrastructure and operating the system has been motivated for via National, Provincial and Municipal budgeting provisions. The Public Transport Infrastructure System Grant (PTIS) will no doubt be the key source of the majority of the funding;
- Preliminary work suggests that Phase 1 IRPTN projects can be operational by 2015 if the requisite funding is secured.

Land use strategies that support the development and performance of an effective and sustainable transport system are focused around the major IRPTN corridors and include the following:

- Protecting existing employment opportunities within these corridor areas;
- Maintaining the quality of high value investment, office, retail, residential and tourist areas within the corridors;
- Discouraging the development of major employment opportunities outside the corridor areas- at least in the short term until the corridor investment has gained momentum;
- Stimulating higher employment and residential densities within these corridors in particular, as well as the promotion of residential densification within the core urban area in general;
- Renewing areas around major stations and modal interchanges as high density residential, office and retail uses.

6.3.6 Public Transport Activity Nodes and Corridors

Nodes are places of high accessibility usually located at important transport interchanges and characterized by a concentration of mixed uses. Sometimes, transport interchanges generate a node, and other times a node may encounter transport development.

The main transport /interchange nodes include the following:

a) Warwick ,
 - Major public transport node
b) Pinetown CBD
 - Major public transport node
 - Hub of transport activity
c) Bridge city
 - major transport node

Accessibility corridors are linear mixed-use areas containing a concentration of facilities such as retail, office, work, residential, entertainment and community facilities. Mobility corridors are primarily high speed routes to access different areas.

Existing activity corridors include:

- The north-south rail corridor extends from Isipingo in the south to the northern residential areas of KwaMashu, Ntuzuma, Inanda and Phoenix in the north.
- The east-west corridor extends from the Port of Durban to the Old Main Road in Westville-Pinetown Kloof and Hillcrest areas right through to Cato Ridge and Mpumalanga areas.
- Umbilo & Sydney Roads, Umgeni Road, Stamford Hill, Florida Road, Spine Road and North and South Coast Roads, Essenwood Road and Musgrave Road

The extension of these corridors provides opportunities around which to attract investment.

6.3.7 Development Corridors

Corridors of development are viewed as growth or development axes that spatially structure development. Development corridors comprise of a mix of activity making them intense robust and diverse environments that service the Municipality. Corridors of development also lead to the establishment of links between districts and neighbourhoods that ensure cohesiveness and integration of activity and communities. Development corridors within the Municipality include:

- Urban Service Nodes and Corridors supporting mixed use urban activities;
- Rural Service Nodes and Corridors supporting local level services;
- Coastal Corridor consist of high quality natural coastal assets and consist of mixed uses including mixed density residential, recreation, entertainment and tourist oriented activities;
- Tourism Corridors supporting tourism activities;
- Industrial Corridor supporting primarily industrial activities;
- Agriculture Corridor ; and
- Airport Noise Zone.

6.4 Economic Development Nodes and Corridors

The identification of economic nodes and corridors is to help provide an effective distribution network for a range of economic opportunities and to identify areas which may serve varied catchments of people for different purposes. The hierarchy of investment nodes as identified below has a range and variety of functions to achieve the accommodation of community needs and services. The following type of nodes is identified;

6.4.1 Metropolitan Node

The Metropolitan node is the key economic centre where all of the varieties of economic sectors are prevalent and perceived to have good potential to be further expanded on. The nodal area is visibly linked to high accessibility areas with existing bulk infrastructure and relatively high population densities which would both contribute to the economic expansion and benefit from interventions in these areas

Description : Metropolitan Node	Nodal Area
Scale of node • Provides services at a National, Provincial and Local area **Accessibility** • accessible at a metro-wide scale **Characteristic of node** • Offers a wide variety of mixed uses including recreation, formal and informal residential, businesses, tourism and its CBD role Also characterized by port operations and associated transport activities which service the region and beyond as a multi-modal transport hub	**Durban CBD/Inner City**

6.4.2 Sub-Metropolitan Node

Sub-metropolitan nodes provide accessible day to day business, transport and social services for existing and future local communities. These nodes serve sub-metropolitan areas of large districts and are well connected to metropolitan public transport systems and to their adjacent residential areas. They are generally situated on mobility spines supported by mobility roads and have access to urban freeways offering a full variety of higher order uses with a sufficient mix that may be in tight competition with other such nodes.

Description: Sub-Metropolitan Node	Nodal Area
Scale of node • These are nodes of a sub-metropolitan significance **Accessibility** • accessible at a metro-wide and local scale **Characteristic of node** • provide economic support at a metro wide and local scale • nature of these nodes can vary from having a variety of mixed uses (residential, retail, commercial, business public transport interchange, specialize logistics services and have potential for densification opportunities	**Existing Sub-metropolitan Nodes** Umhlanga town centre Pinetown town centre **Emerging Sub-Metropolitan Nodes** Dube Trade Port **Potential Sub- Metropolitan Nodes** Shongweni Cornubia

6.4.3 Urban Node

Urban nodes are existing and new and are well located lower order nodes serving the needs of local areas. These nodes are located at transport interchanges and or at the interSections of development spines. Their role is to provide essential 'day to day' commercial needs and social and commercial services to immediately adjacent communities.

Description of Urban Node	Nodal Areas
Scale of node • These are lower order nodes serving the needs of local communities **Accessibility** • Are easily accessible by high order transit, a good road network • New urban nodes ideally to be located at transport interchanges and / or at easy access or interSections of major public transport **Characteristic of node** • The nodes provide essential 'day to day' commercial needs, social and commercial services to immediately adjacent communities. • These local nodes are varied in activity mix and are determined by the thresholds which they serve. • Contain a mix of low, medium and high residential densities • Characterized mainly by pedestrian activity • Non-Motorised Transport should be prioritized in this nodes	**Existing Urban Nodes** Verulam Tongaat KwaMashu Town Centre PhoenixTown Centre Newlands Town Centre Inanda Town Centres Bridge City Umlazi Isiphingo/Prospecton Amanzimtoti Craigieburn Chatsworth, Malvern, Westville, Musgrave and Glenwood/Berea Cato Ridge Village Hillcrest Botha's Hill, Kloof and Waterfall Cato Ridge (Town Centre) Kloof (neighbourhood Node) Waterfall (Neighbourhood Node) **Potential Urban Nodes** Illovo Clermont/ KwaDabeka Molweni Node Mpumalanga Town Centre

6.4.4 Investment Opportunity Areas	**Investment Area**
Description Investment Opportunity Areas • These areas provide opportunities for new investment • These areas need to be supported by public investment • Must be targeted for the encouragement of private sector involvement. • Must have or be easily accessible to major public transport routes • Available infrastructure capacity needs to be investigated in these areas	Cornubia Inyaninga Canelands River Horse Valley Phoenix Industrial Park Tongaat North Springfield Park Umlazi Isipingo/ Prospecton, Umbongintwini industrial area Hammersdale Mpumalanga Cato Ridge Shongweni Bartletts

6.4.5 Rural Service Nodes	Nodal Areas
Description: Rural Service Node • These nodes provide local level services (social and economic activities, traditional structures, facilities etc) for surrounding communities • Must be centrally located for easy access to surrounding rural communities • Must have easy access for pedestrians	Zwelibomvu KwaNgcolosi Ntshongweni KwaSondela Buffelsdraai Cottonlands Adams/Folweni Matabetule (new) Senzokuhle (new)
6.4.6 Rural Investment Node	**Nodal Areas**
Description : Rural Investment Node • Rural Investment Node have potential to provide support Services (Business, Agriculture, Tourism and Environmental issues and opportunities for local economic development) • Must ideally be located within easy access to major transport routes • Ideally must be located where there is already an existing accumulation of activities	uMgababa/ uMnini Umbumbulu Inchanga uMzinyathi KwaXimba
6.4.7 Industrial Node	**Nodal Areas**
Description: Industrial Node • These nodes provide specialized focused services • These areas have a metro-wide significance	Cato Ridge (Industrial) Hammarsdale (Industrial Node) Tongaat Inyaninga Cornubia Port Umbogintwini Illovo Pinetown
6.4.8 Tourism and Recreational Node	**Nodal Areas**
Description: Tourism and Recreational Node • These nodes can provide a range (or some) form of cultural, recreational and tourism opportunities • May have inherent natural qualities such as dams, scenic views or cultural heritage • Provide a range of Cultural, Recreational and Tourism Opportunities for Local Economic Development.	Durban Beach Front Umhlanga Umdloti Amanzimtoti Kingsway Tourism Corridor Valley of Thousand Hills Inanda Dam Shogweni Recreational Node Inanda Dam Hazelmere Dam Ntshongweni Dam Dudley Pringle Dam (New local recreational node) Shembe Village
6.4.9 Rural Tourism and Recreational Nodes	**Nodal Areas**
• Description: Rural Tourism and Recreational Node • Range of Cultural, Recreational and Tourism Opportunities for Local Economic Development	• Inanda Dam • Hazelmere Dam • Ntshongweni Dam • Dudley Pringle Dam (New local recreational node) • Shembe Village

6.4.10 Tourism Routes	Areas
Description: Tourism Route • Scenic cultural and environmental routes.	• Durban Beach Front • Umhlanga • Umdloti • Amanzimtoti • Kingsway Tourism Corridor • Valley of Thousand Hills • Inanda Heritage • Township Tourism • Warwick
6.4.11 Sports and MICE (Meetings, Incentives, Conferences/conventions and Exhibitions) Nodes	**Nodal Areas**
Description: Sports events and MICE (Meetings, Incentives, Conferences/convention and Exhibition) Node • Offer a range of sports events, recreation, entertainment and tourist oriented precincts	• International Convention Centre (ICC), • Point Waterfront Development, • Ushaka Marine World, • Sibaya Kingdom, • Golden Mile • Green Hub Corridor • Sun Coast Entertain-ment Complex • Moses Mabhida and King's Park Sport Precinct

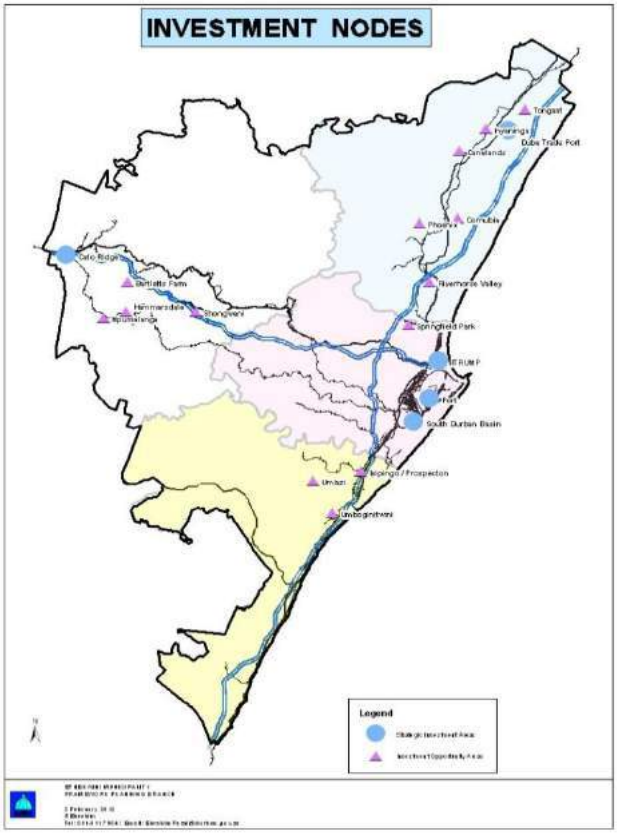


Figure 88: Investment Nodes

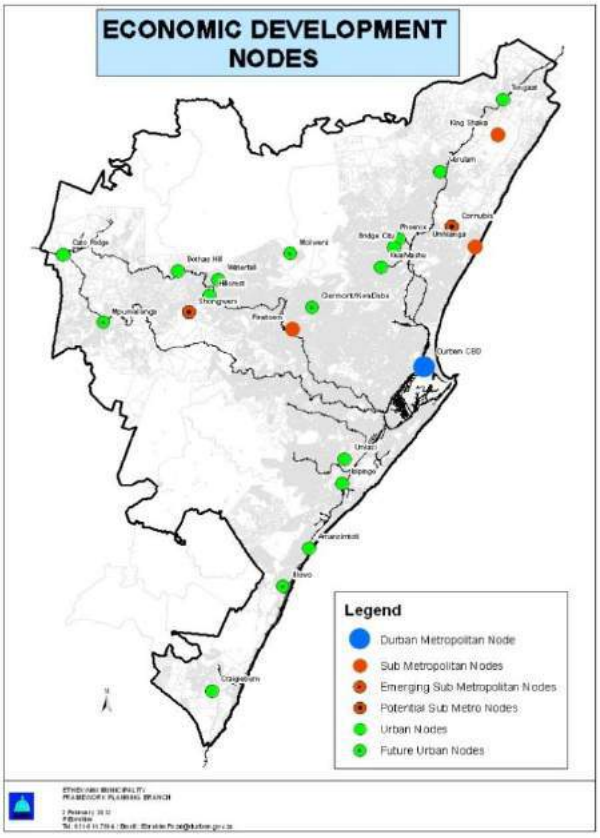


Figure 89: Economic Development Nodes

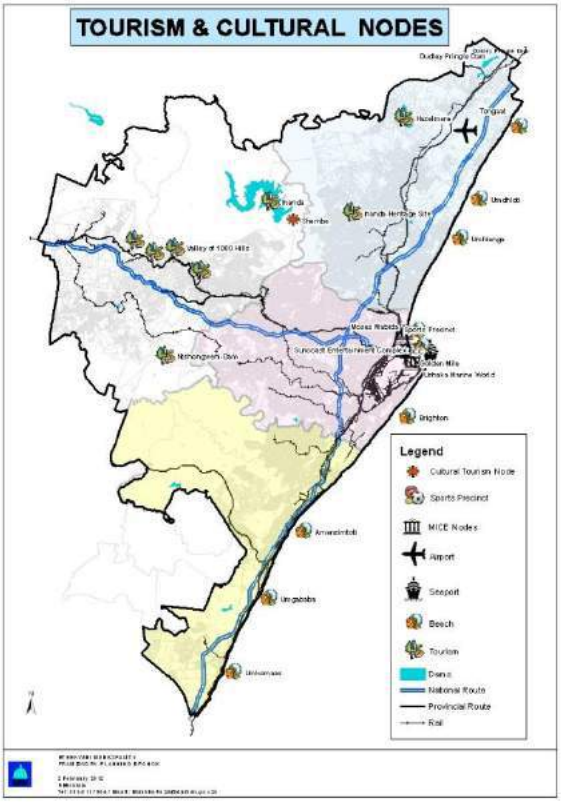


Figure 90: Tourism and Cultural Nodes

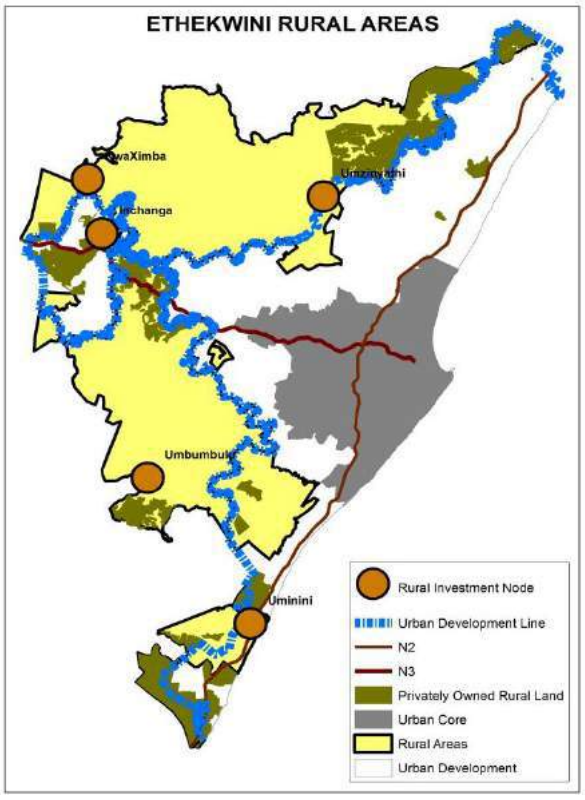


Figure 91: Rural Nodes

6.4.12 Strategic Investment Areas

In addition to these nodes the SDF identifies Strategic Investment Areas (Figures above) to help prioritise and guide development initiatives to be located in areas where the greatest impact and positive spin-offs froma city wide scale can be achieved. The Strategic Investment areas are identified as follows:

- **Port of Durban**

The Port of Durban is the primary contributor to eThekwini's economy which is of provincial and national significance and has seen a steady increase in container traffic in recent times. One of the serious constraints to development is the inefficiencies and congestion in the Durban port operations. Improving the Municipality's logistics infrastructure will ensure the maximization of port economic opportunities. In this sphere, rail linkages, port efficiency, back-of port operations to enhance capacity and range of business, inter-modal transport hubs in-port and inland and the newly-planned dug-out port are projects which will give life to KwaZulu-Natal's positioning as the Gateway to Africa.

- **Illovo**

The Illovo Local Area Plan (LAP) is underway to develop a shared vision for understanding the role of Illovo in the sub region, metropolitan and regional context. The Illovo South Boundary is within close proximity to the South of Durban Port and forms part of the Strategic Investment Project (SIP 2) corridor from the South of Durban inclusive of the Port to Gauteng. The Port expansion plans, the Back of Port Plan, the Dedicated Freight Route and the Automotive Supply Park (ASP) are all integral elements of SIP2 and will be crucial to the economy of eThekwini and the Province.

- **Back of Port**

The development of the Port as an economic, manufacturing and trading hub is essential for its promotion as a gateway especially to the east. This needs to be located within an integrated development plan for the port that includes linking its planning with that of the CBD and with the adjacent industrial areas to the south. The Department of Trade and Industry's National Spatial Development Initiative (SDI) provides the opportunity for focusing on the co-ordination of different levels of government and different stakeholders.

- **Dube Trade Port**

The Dube Trade Port (DTP) has been established between the two sea-ports of Durban and Richards Bay to harness the value of having an air logistics platform. DTP is developed to promote access to global trade and open up new opportunities for production and export of high-value perishable products and manufactured goods. It is expected to act as a catalyst for economic development and labour intense growth throughout KZN province. The massive infrastructure investments in the Dube Trade Port aerotropolis will need to be optimised to fulfil its logistics promise and the Richards Bay port and industrial complex will work on the development of its growth path.

- **Cato Ridge**

Cato Ridge has been identified as one of the industrial expansion and potential dry port areas in the Municipality that can respond to the increasing demand for industrial land in eThekwini Municipality and provide logistics support for the port. However, the area faces enormous challenges especially with regards to traffic issues (limited accessibility) and as a result the area has not been unlocked and used to its full potential. By improving the infrastructure, upgrading the N3 and addressing the sewer issue these challenges can be addressed and the area can be unlocked for industrial and logistic development. The development of Cato Ridge will also serve as a stimulus to unlocking the potential of the surrounding areas of Mpumalanga and Hammersdale

- **South Durban Basin**

This area contains South Africa's largest manufacturing enterprises in the midst of relatively poor residents. The aim in this area is to regenerate the industrial base, creating cleaner, greener industries, whilst improving the residential conditions of people in the area. The aim of the SDB ABM is to improve resident's access to social, recreational, economic and environmental facilities in the area. As a strategic focus area the objective in the SDB is to restore business confidence, consolidate existing enterprises and stimulate new development, facilitate renewed socio-economic investment and improve quality of life by tackling environmental problems, addressing operational deficiencies and improving the built environment in a sustainable manner.

- **iTRUMP Inner City Regeneration**

The Inner eThekwini Regeneration and Urban Management Programme (iTRUMP) programme drives regeneration and urban management in the Durban inner city. A complex range of issues from the flight of offices to the suburbs to the problems of the urban poor, informal trading etc all require innovative responses and is thus a strategic focus area. The iTRUMP ABM was established as a response to the need to prioritise regeneration of the inner city and places strategic value at the core of its business which seeks to maximize its multiple opportunities. The promotion of the inner city as a commercial and tourist gateway requires building on the current strengths of the inner city as well as utilising opportunities for residential densification and economic growth. The work of the current inner city ABM (iTRUMP) must give guidance to realising this potential.

6.5 Provision of Social Facility Nodes

A hierarchy of social facilities is supported and reinforced in this SDF to ensure the allocation of social facilities is done in appropriate locations. The hierarchy of nodes is proposed to guide an effective distribution network for a range of social services and to maintain service provision efficiency. This is to ensure that facilities have the potential to be utilised to an acceptable level rather than planning for high levels of excess / unused capacity.

6.5.1 Proposed hierarchy of social facility nodes

The criteria that has been used in the study of social nodes has taken the following factors into consideration;

- **The Catchment area extent** which shows the node locations and catchment extent. The model assigns all population in the hexagons to the closest node (each having unlimited capacity), thereby creating a spatial extent / boundary;
- **The User-side classification** which takes into consideration travel time to the closest node within each catchment (indicated by shading on the map) and
- **The service-side node classification** based on the modeled allocation to each node of all people (who are closer to this node than to any other).

The clustering of social facilities is ranked and translated into different social facility nodes levels (level 1-5) as follows:

Level 1 Node: Durban CBD

This level is linked to the foreseeable future of a single social facility node of a metropolitan status where all the highest order social facilities are to be located. This includes facilities such as the High Court, City Hall, Reference Library, ICC and International Sport Precinct, main City Council offices, etc. This decision was based on the pragmatic approach that irrespective of the emergence of decentralised nodes over the years, the historic Durban CDB remains the established location for these services with limited likelihood of any change. Duplication of these metropolitan facilities is unlikely in the foreseeable future given resource constraints. Durban CBD is supported by the *de facto* investment in higher order local, provincial and national facilities.

Level 2 Node:

The second level nodes have threshold requirements of sub-regional / higher order facilities. Second order nodes should have a population catchments of 400 000 people within 20 minutes travel time. It is considered appropriate that there should be at least one Level 2 Node in each sub-region to act as the focus for higher order facilities. The outcome indicated too many competing nodes in the North and no Level 2 Nodes in the South or West due to inadequate population within any of the catchments. An initial action was to test the ability of Isipingo Rail (key transport node) in the South, and Mpumalanga in the West, to attract 400 000 residents within its catchment before testing the remaining nodes in competition with one another.

Bridge City will serve as the Level 2 Node in the North and Umlazi (mega city area) will be the Level 2 Node in the South. Pinetown will serve the West and part of Central whilst the CBD will provide for all Level 1 and 2 needs for those closest to this area. In the next five to eight years it is expected that a second Level 2 Node is likely to emerge in both the north and south.

No node in the Outer West can be designated as a Level 2 Node as neither Hillcrest nor Mpumalanga (the two most established nodes) attract 400 000 people. Shongweni node has the greatest regional accessibility but at the moment there is insufficient development at this node.

Level 3

The primary criterion for ranking of Level 3 and lower nodes was based on a minimum threshold of 90 000 people, but not exceeding 390 000, living within a 20 minute travel time (in competition with other nodes of Level 3 status or higher)

Level 4

The population threshold of level 4 ranges between 30 000 and 90 000 people. The nodes of this level are in competition with other nodes of Level 4 or higher, in 15 minutes travel time.

Level 5

The population threshold of this level is less than 30 000 people but more than 3 000 people in 10 minutes of travel time.

The catchment areas around the nodes are shown in various shades on the map to distinguish each separate catchment area

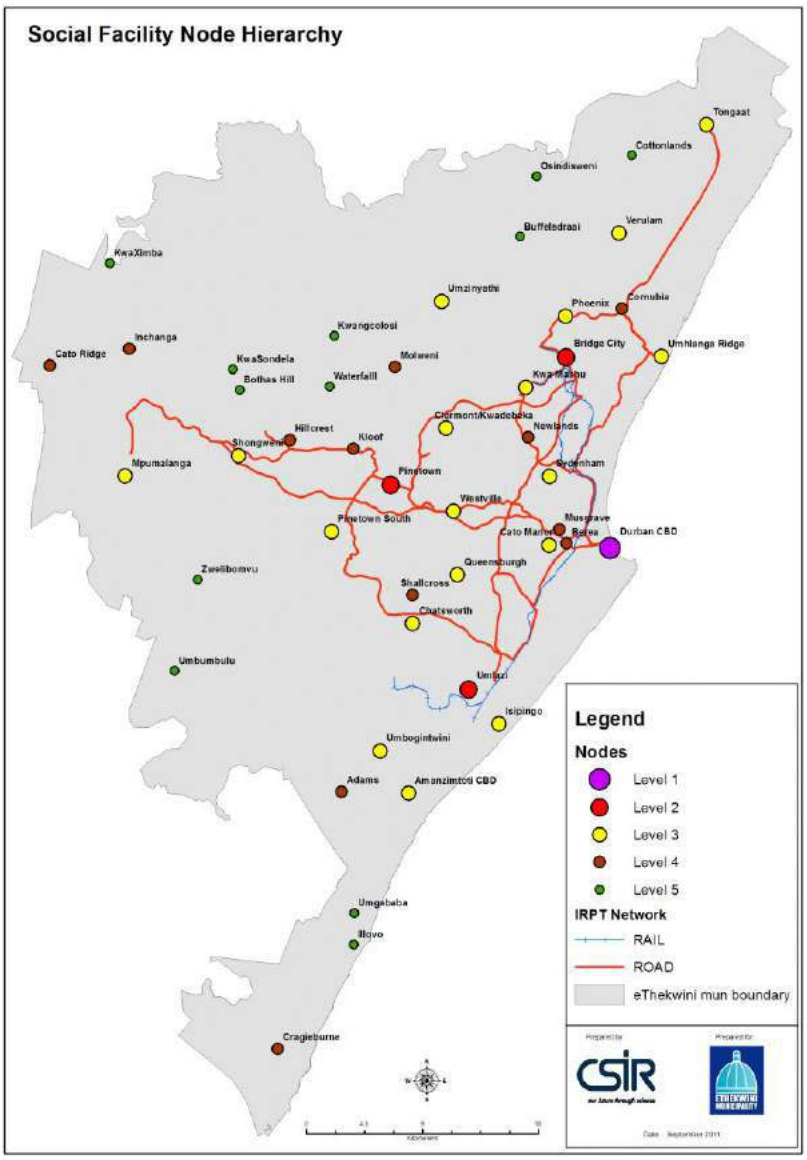


Figure 92: Social Facilities Node Hierarchy

6.6 Strategic Infrastructure Planning and Implementation

6.6.1 Infrastructure Asset Management

The Municipality is on a drive to introduce good asset management practices in all municipal departments. For example, ensuring that there is a greater emphasis on proactive rather than reactive maintenance of infrastructure thus ensures that we are not over-committing funds to building new infrastructure which leads to insufficient funding for the maintenance, renewal, rehabilitation/reinforcement and replacement of existing assets. Managing the demand for new infrastructure is also being promoted. One example of this is the effort being put into reducing the loss of municipal water (and thereby reducing the need for new water infrastructure to be built) through replacing water pipes and repairing leaks, reducing water theft and managing water pressures in the pipe network. Consideration is also being given to, where possible, reducing the dependence on river water as the only potable supply through the re-use of water from treatment

works as well as research into sea water de-salination. These initiatives are referred to as 'alternative supply' projects. Another example of this type of project is the generation of electricity from methane gas at municipal landfill sites.

6.6.2 Addressing Infrastructure Backlogs

The Municipality has as part of its Infrastructure Planning, documented the nature and extent of the urban and rural backlogs in service delivery across the entire metropolitan area, using digital records held by the Municipality together with input from communities and councillors. Services that are being targeted include water, electricity, solid waste, sanitation, storm water, roads and sidewalks, pedestrian bridges, public transport infrastructure, all community facilities and the provision of street addresses to all houses within eThekwini. In order to address these backlogs, specific strategies will be developed for urban and rural areas.

The Comprehensive Infrastructure Plan (CIP) Phase One identifies the backlog for bulk and reticulation infrastructure, and the backlog in asset management for water, sanitation, electricity and roads. The asset management Section of the plan indicates the long-term operational costs.
Phase 1 of the CIP deals with the provision of services for the current Housing Plan and to rural areas. It acknowledges that later editions of the plan will need to deal with private developments as well. Phase One reflects all projects in the eThekwini Housing Plan, the Interim Service Program, rural backlogs and New Initiatives for social facilities.

Emphasis is given to the eradication of rural basic service backlogs especially water and sanitation. In urban areas the primary intervention is the eradication of informal settlements through the provision of housing and a package of household services as well as the provision of interim services to improve living conditions in these settlements.

The CIP distinguishes between three standards of services:

Area	Standard
Rural service standards	One ground tank per household supplied with 300l per day; Urine diversion toilet; Electrification only of densely clustered pockets; All weather surface to all public transport routes and roads within communities having a density greater than 15 person per Ha
Interim Service standards	Communal ablution blocks (toilets and showers) within 200m of served households; Electricity to every dwelling; High mast lighting for security; Emergency access roads for waste removal, fire and emergency vehicles.
Urban service standards	Full pressure house connections; Waterborne sanitation; Electricity connection; All weather surface roads

6.6.3 Cost Surfaces Model

Land identified for both in-situ upgrade and greenfields projects are evaluated using the Cost Surface Model. This Model indicates spatially the presence as well as the capacity of bulk infrastructure across the Municipality. It provides cost estimates for bulk infrastructure provision for any location in the city.

The objective of applying the model is to locate housing projects where services with available capacity are present rather than locating projects in areas where new services must be provided at higher cost to the Municipality. Where services are not available in areas identified for projects (given land constraints) a phased servicing approach integrating various (engineering) line budgets is undertaken. It is noted that the Cost Surfaces Model needs to be regularly updated to reflect new developments. The Cost Surfaces Model is a key informant of the Urban Development Line, a spatial intervention aimed at promoting a compact city and combating urban sprawl.

CHAPTER 7

THE REVISED SPATIAL DEVELOPMENT FRAMEWORK

***Synopsis*:** This chapter seeks to guide the overall spatial distribution of current and desirable land uses within the municipality in order to give effect to the vision, goals and objectives of the municipal IDP

7. THE REVISED SPATIAL DEVELOPMENT FRAMEWORK (SDF)

The revised spatial development framework is represented by a composite map that shows key spatial proposals and development concepts and depicts pictorially the thrust of the IDP showing the Municipality's investment intentions and development management approach as discussed previously. The components of the SDF and the consolidated map can be found at Annexures 14 and 15 respectively.

7.1 Composite/Spatial Development Framework Map

The strategic focus areas for our municipal SDF are**:**

- Identification of future landuses including areas for industrial expansion, mixed use development and residential infill contained within an urban development line.

- Future residential development outside the UDL that supports different lifestyles, densities and has different servicing needs and constraints as opposed to those within the UDL which are higher density and urban in nature;

- Regeneration of existing developed areas such as Warwick Junction, the Inner City, Cato Manor and South Durban Basin, Secondary CBD's such as Pinetown, and former Township Nodes and Corridors e.g. INK,Clermont/KwaDabeka and Umlazi

- The Port of Durban, Dube Trade Port and surrounds and Cato Ridge / Hammarsdale as key economic investment areas which require major investment;

- The provision of investment opportunity areas within Hammarsdale, Bartletts (Keystone), Shongweni, Cornubia and Illovo as a way of encouraging private investment and partnerships within the Municipality subject to servicing and financial limitations;

- Smaller urban investment nodes which provide convenient and efficient access to commercial, community and social facilities thereby reducing the need to travel long distances. These nodes have a number of characteristics and may include higher residential densities, mixed use, public transport and non-motorised transport, public amenities and good infrastructure with the level of services defined by the respective role of the node within the hierarchy of nodes;

- Densification and intensification of land uses along the Integrated Rapid Public Transport Network (IRPTN) and within existing nodes and corridors to reduce sprawl and the need to travel long distances to access services.

- Emphasis on integration, accessibility and convenience in more densely populated urban areas including the provision of priority public transport routes, road and rail linkages;
- The promotion and preservation of key environmental assets e.g. upper catchment areas that provide free ecosystem services, including the buffering of negative climate change impacts, and supports the health of the entire metropolitan area;

- The promotion and preservation of key agricultural assets to secure long term food security

- The promotion of Coastal, Mixed Use and Tourism corridors that provide diverse opportunities for development and lifestyle whilst protecting against the risks of sea level rise;

- The identification of high risk areas and protection against disasters.

- Any development in areas in or adjacent to the Municipality's important environmental assets will require careful scrutiny and appropriate action to ensure no negative impacts, notwithstanding the current zoning that may apply.

7.2 Detailed Spatial Planning

The SDF does not provide definitive statements on all aspects of spatial development in the EMA. Sector plans and detailed spatial plans also reflect this understanding at a more local scale. In order to achieve more detailed spatial proposals the SDF is translated into more geographically specific physical development and land use management guidelines through the preparation of Spatial Development Plans (SDPs), Local Area Plans, Functional Area Plans and Land Use Schemes .

Spatial Development Plans are undertaken annually for each spatial planning region identified in the municipal area, namely the Central, North, South and Outer West Spatial Planning Regions. These are informed by the SDF and provide greater detail about future spatial planning and land use, environment, transport and infrastructure interventions required at a regional level and might be considered equivalent in nature to a Regional Spatial Development Framework. This SDF should be read in conjunction with all lower order plans (SDP', LAP's, FAP's and Schemes as they reflect and carry through the spatial and non-spatial planning intentions of the IDP and SDF to increasing levels of detail culminating in detailed Land Use Guidelines and Draft Schemes. All of the above plans form part of the Package of Plans and should be read in conjunction with the SDF Review 2016/2017. Annexure 2 of this report provides a summary of the SDPs. All Council Approved lower order are listed under Annexure 7 and can be accessed via the Council's web site on:http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Pages/default.aspx

CHAPTER 8

SDF IMPLEMENTATION AND CAPITAL INVESTMENT FRAMEWORK

Synopsis: The capital investment framework is part of the implementation which indicates capital projects and priorities which the Municipality will undertake within its five years budget cycle.

8. SDF IMPLEMENTATION AND CAPITAL INVESTMENT FRAMEWORK

8.1 Linking Town Planning Schemes to the SDF

The Municipality's delivery plan (IDP) is organized into eight separate but related plans. The first of these plans is 'Develop and Sustain our Spatial, Natural and Built Environment'.

Goal:

The goal of this plan is to lead, direct and manage the spatial, built and natural environment to ensure the sustainable and integrated growth and development of our Municipality for the benefit of all its citizens.

Desired Outcome:

The desired outcome of this plan is that "citizens will be able to access and use resources to meet their needs without compromising the amenity for others and the resource base of the Municipality in the present and in the future".

The programmes to achieve the outcome of this plan include:

- Develop and Implement a sustainable and integrated spatial planning system.
- Ensure the long term sustainability of the natural resource base
- Manage and regulate the built environment
- Develop and implement a Municipal Climate Protection Programme
- Integrated Coastal Management

The Spatial Development Framework (SDF) is the point of integration of strategic municipal spatial strategies in the arena of economics, transport, environment and society. The Spatial Development Plans (SDPs) cover the municipal area at a greater level of detail than the SDF. The relationship between broader strategic planning and Schemes is central to ensuring consistent and thorough decision-making around land use management and change.

The Scheme is used to enforce the broader policies contained in the Municipality's Integrated Development Plan (IDP) and Spatial Development Framework (SDF) at a property level. Our municipal IDP and SDF guides development, and thus inform the preparation and management of land use in terms of the Scheme. The Land Use Management Framework (LUMF) provides the link between the Scheme and SDF proposals.

The LUMF translates the strategic objectives to a level that will provide spatial representation and quantification of SDF proposals to guide the preparation of the Scheme and decision-making on applications for land use change. It does this by translating the SDF into a more detailed set of broad land use areas that direct the future development of areas and provides the basis for the formulation of the detailed zones for the Scheme.

This link between the Scheme and SDF through the LUMF ensures that operational guidance is provided for planners responsible for implementing the SDF and Scheme and ensures that institutional guidance is provided and takes account of existing governance structures such as Traditional Authorities and the Ingonyama Trust Board in some areas of land use decision-making. The following diagram illustrates the relationship between the SDF, LUMF (linking elements) and the Scheme.

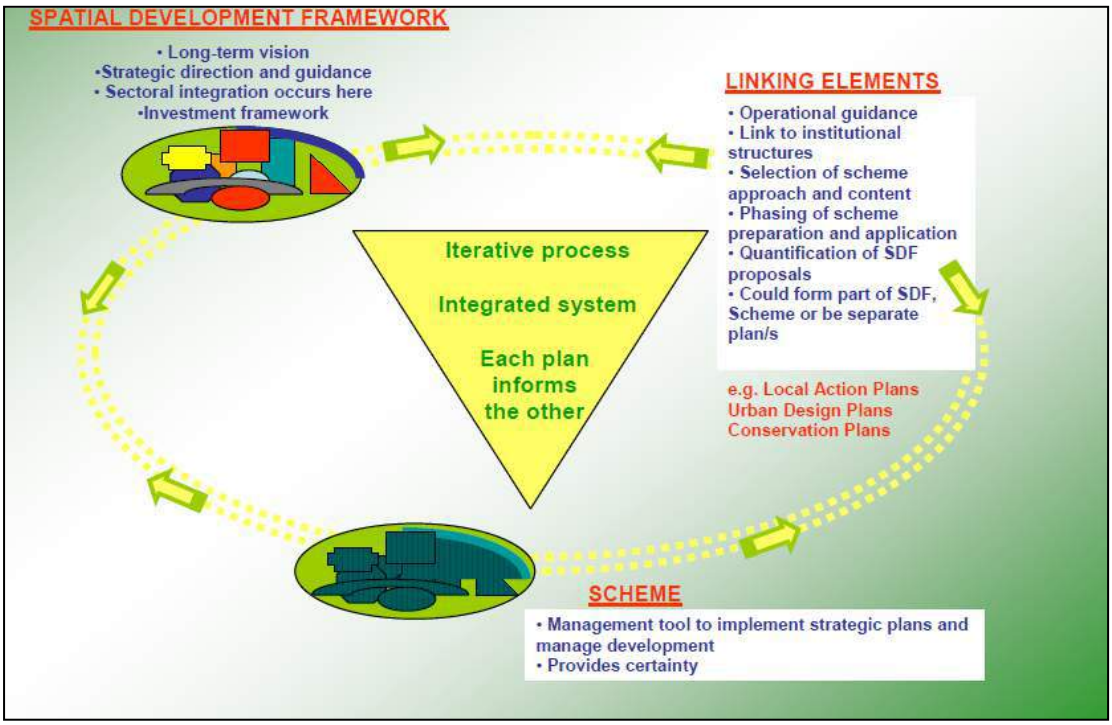


Figure 93: Relationship between the SDF, LUMF (linking elements) and the Scheme

The eThekwini Spatial Planning and Land Use Management System (LUMS) will provide a customer-focused tool that will implement spatial policy, stimulate growth, which will give citizens, landowners and developers a sense of security and confidence, and will allow Council to make decisions that are in the public interest. The eThekwini Land Use Management Systems 'toolbox' is made up of an Integrated Suite of Plans. The Suite of Plans includes corporate policies and strategies for the Municipality (LTDF, IDP and SDF) and implementation tools (SDPs, LAPs, FAPs, SAPs and LUSs).

The corporate policies and strategies outline the long term vision for the development of the Municipality which is applied and achieved through the implementation tool. The implementation tools consist of a range of planning activities all running in parallel with each other with the common purpose of updating, refining and establishing appropriate mechanisms for managing land use and development in the Municipal area.

The SDF provides a spatial translation of the corporate policies and strategies. It is implemented through a set of detailed plans starting from the Spatial Development Plans (SDP's) which are developed to bridge the gap between the strategic/conceptual SDF and the detailed land-use

schemes referred to in the municipal plan hierarchy. The SDP's identify a number of priority projects which are detailed in Local Area Plans (LAPs) and Functional Area Plans. The following diagram reflects the integrated suite of plans and the relationship between the Implementation tools:

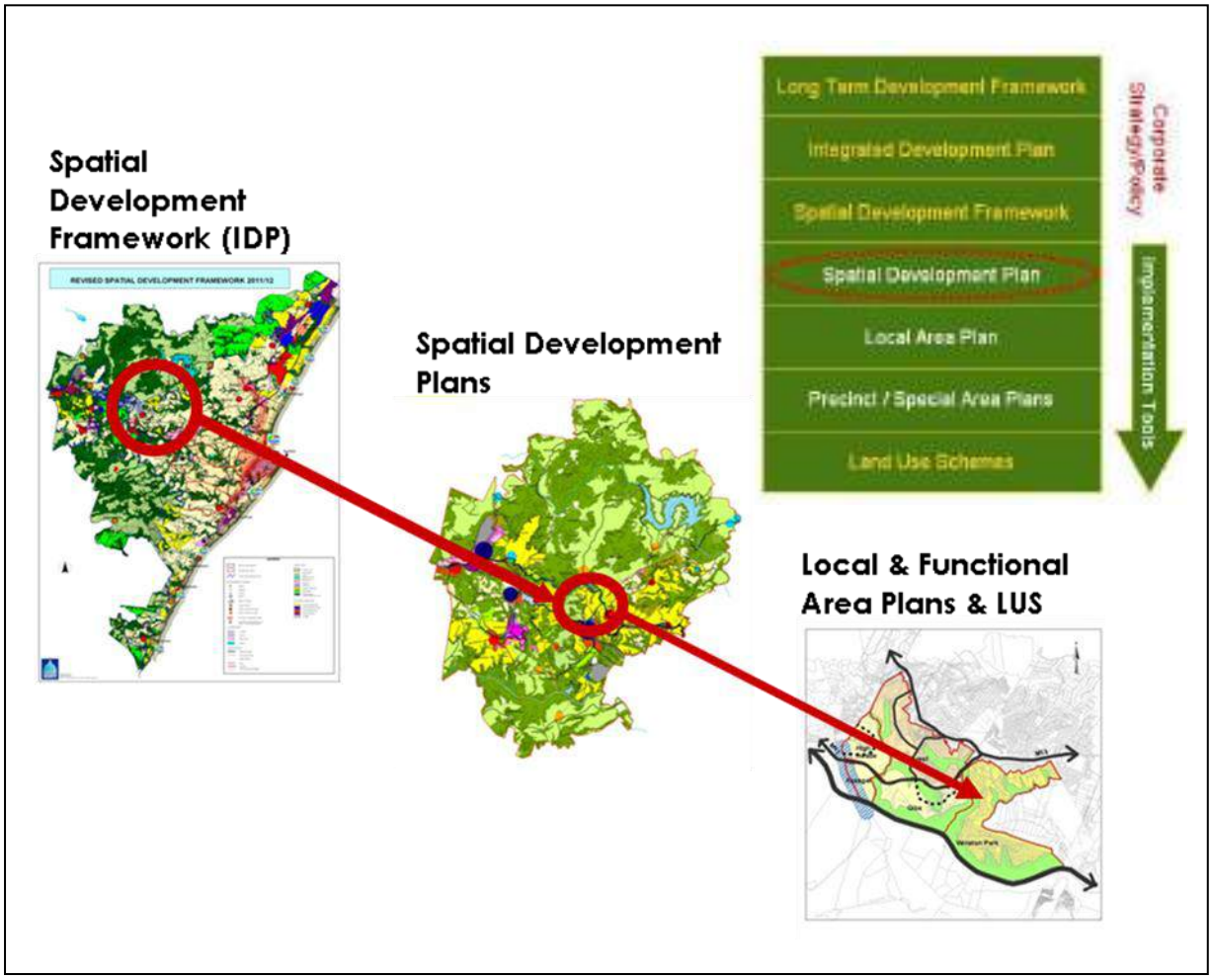


Figure 94: Suite of Plans and Relationship between the Implementation Tools

The implementation tools provide detailed planning and land development guidelines. These guidelines often include urban design guidelines and directives as a way of detailing the principles as suggested within the SDF. This in turn guides the preparation of the Scheme. The update of Schemes is informed by the phasing of development as illustrated in the detailed planning. The Municipality will only support development that aligns with the policy proposals and guidelines as contained within the Integrated Suite of Plans.

8.2 Development Strategies, Policy Statements and Land Use Guidelines

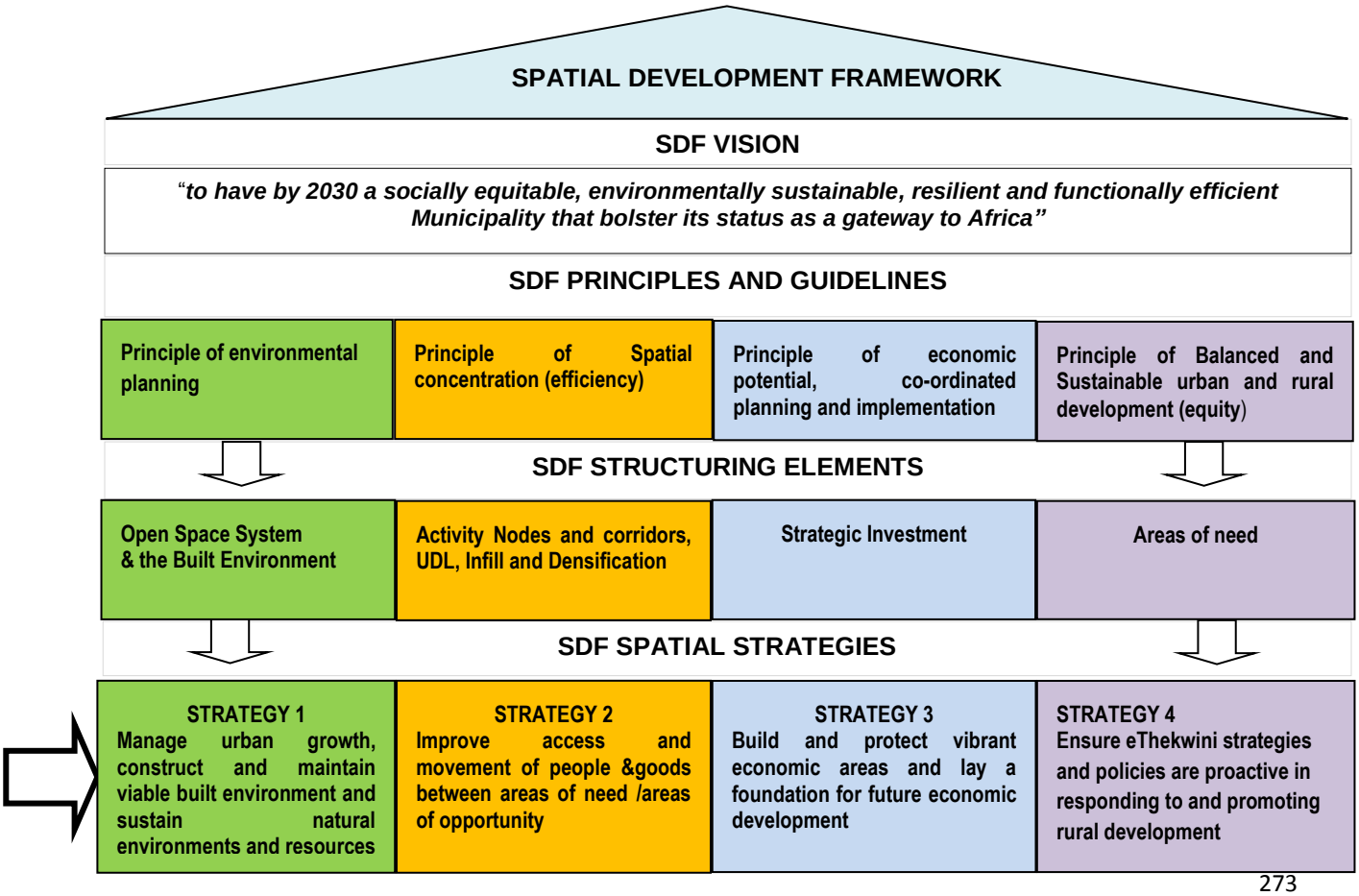
Development strategies have been formulated to help achieve the desired spatial outcomes of the EMA. The strategies outlined below have been developed from an understanding of the development context and are guided by the policy framework pertaining to the SDF as outlined in chapter 1.

The strategies are also guided by the SDF vision, to have by 2030 a ***socially equitable, resilient, environmentally sustainable and functionally efficient Municipality that bolsters its status as a gateway to Africa.*** This vision is underlined by a set of principles as discussed in chapter 4.

The strategies discussed below are intricately linked and do not exist in isolation of each other. Integration of the strategies occurs in the following way:

- At a broad strategic level through the Integrated Development Plans, and
- At an operational level through the application of spatial planning tools (such as nodes and corridors density variation, catchment based planning and encouraging compact development through the application of the Urban Development Line (UDL) and various spatial targeting instruments.

Underlying the strategies are two institutional pre-conditions. Firstly there needs to be a supportive land use management system to provide the strategic and operational framework for development. Secondly linkages should be established with IDP strategies.



8.2.1 STRATEGY 1: Manage urban growth, construct and maintain viable built environment and sustain natural environments and resources

This strategy is informed by the principle of sustainable environmental planning**.** The spatial focus of this strategy is protecting and enhancing rural, agricultural and urban built and natural environments. The strategy aims to maximize opportunities for sustainable urban form and promoting sustainable use of resources and protection of the natural environment and agricultural resources. Some examples of Municipality projects that align with this strategy include the Coastal Management Plan, Catchment Planning, the Umgeni Green Corridor Project and the Ohlanga-Tongati Local Area Plan.

The key elements of the strategy include environmental protection and enhancement, climate change, place-making and optimal use of existing infrastructure. Good design, creativity and innovation, are essential to improve the built environment and make better use of land to support sustainable patterns, for example:

- taking into account the economic, environmental, social and cultural implications of development and spatial investment decisions on communities;
- improving the built and natural environment, and conserving the region's heritage;
- promoting community safety and security, including flood risk;
- ensuring that services are conveniently located, close to the people they serve, and genuinely accessible by public transport;
- promoting good quality design in new development
- promoting policies relating to green infrastructure and the greening of towns and cities;
- maintaining and enhancing the quantity and quality of biodiversity and habitat;
- assessment and amelioration of the potential impacts of development (and associated traffic) on air quality, water quality and water levels.

Strategy 1 is elaborated further in the table below:

Table 10: Strategy 1 Policy Statements, Requirements and Land Use Management Guidelines

Manage urban growth, construct and maintain viable built environment & sustain natural environments and resources			
Policy Statements	**Requirements to achieve policy statements**	**Land use management guideline**	**Alignment with policies**
1. Construct and maintain a viable built environment	• Promote the optimal use of existing and future infrastructure and resources • Promote densification in strategically located and well-serviced areas • Encourage mixed land use particularly along transport corridors • Identify well located, accessible land for Greenfield development • Upgrade informal settlements and under-invested areas. • Maintain public investment in existing residential and public environments. • Previously disadvantaged areas should be specifically targeted for the identification of open space projects	• Promote a variety of housing typologies to maximize efficiency while at the same time promoting culture and heritage. • In promoting housing, ensure that there are safe spaces and recreational places for people. • Ensure preservation of the natural environment. • Rural development should be guided by the Rural Strategy	• EThekwini densification study • DMOSS • IRPTN • SDP's • Housing Sector plan • EThekwini Urban Design • Adaptation Plan • Strategic Environmental Plan • Catchment Management Plan • NDP • IUDF • SDG's
2. Reduce urban sprawl and promote a compact city development	• Minimise the conversion of agricultural landfor new urban development • Prioritise infill development in areas that provide opportunities for linking • and integrating areas • Ensure clustering of various activities (work, live, play) at appropriate locations. • Densification and Infill should be promoted in well serviced and strategically located areas and should contribute to the restructuring and efficiency of the urban environment • Densification and Infill should help to create thresholds for public transport and contribute towards more effective utilization of various modes of public transport. • Higher residential densities should be promoted around nodes and within corridors	• In areas where there is sufficient infrastructural capacity, densify the area by the introduction of a mix of land uses. • Support rezoning of land to allow for increased densities only in areas identified for densification • Prioritise infill areas for development that provide opportunities for linking and integrating communities, neighbourhoods and economic areas • Ensure the pre-conditions to densification such as suitable development controls and building regulations, namely, FAR, coverage, setbacks, minimum lot sizes, zoning, parking regulations, height, restrictive title conditions are addressed and discussed with the applicant. • Prioritise higher residential densities / housing projects within existing nodes and within public transport corridors	
3. Sustain natural environments and resources	• Optimise the economic, social, aesthetic and functional value of open space services through the implementation of DMOSS • Existing natural environmental resources should be protected and enhanced to ensure that the ecosystem within the open space	• Ensure proposed development does not encroach onto environmentally sensitive land	

	are able to effectively deliver services • Development must be directed away from hazardous areas such as floodplains, unstable soils and steep slopes • Protect environmentally sensitive areas, agricultural land and open space • Protect river catchments and develop catchment management plans for river systems where rapid development will occur • Develop coastal management plans • Create a network of green open spaces and protect important environmental areas • Support sustainable catchment management and stormwater practices. • Promote the prevention and reduction of pollution.		

8.2.2 STRATEGY 2: Improve access and movement of people and goods between areas of need and areas of opportunity

This strategy is informed by the principle of spatial concentration and promotes efficient movement of people and goods, urban infill and densification. The spatial focus of this strategy is to address challenges relating to spatial fragmentation and distorted settlement patterns within the EMA.

In relation to movement of people the strategy proposes that development should be located so as to reduce the need to travel, especially by car, and to enable people as far as possible to meet their needs locally. Safe and sustainable access for all, particularly by public transport, between homes and employment and a range of services and facilities (such as retail, health, education, and leisure) should be promoted.

In terms of movement of goods a shift towards a more sustainable mode of transport for freight should be secured, an integrated approach to managing travel demand should be encouraged, and road safety improved.

An example of a project that aligns with this strategy is Bridge City, a fairly new mixed use sub-metropolitan node which is located on a major development corridor and transport networks, MR93 and North Coast Road and includes an underground railway station. The locality of the Bridge City site suggests that, from a development perspective, the site is accessible to a local and regional commuter and consumer markets. Bridge City will serve as the social and commercial centre to an area housing a population of over 800 000 people, who at present, have generally poor access to facilities and social services.

Other examples of projects that align with this strategy include the City's Densification Strategy; the MR 577 (constructed) links Pinetown and Inanda-Ntuzuma-KwaMashu (INK) areas and the MR 579 (proposed) aimed at improving linkages between uMlazi with Pinetown.

Strategy 2 is elaborated further in the table below:

Table 11: Strategy 2 Policy Statements, Requirements And Land Use Management Guidelines

Improve access and movement of people and goods between areas of need and areas of opportunity			
Policy Statements	**Requirements to achieve policy statements**	**Land use management guidelines**	**Alignment with policies**
4. Improve connectivity withinthe Municipal area and	• Strengthen and integrate public transport networks, services and modes to ensure that passengers move optimally from origin to destination in an efficient manner and in the shortest time possible. • promote public transport links between disadvantaged areas and main economic nodes of the Municipality • Reduce the need to travel by vehicular transport • Facilitate movement between areas of need and wider metropolitan opportunities • Create a safe, efficient and integrated city wide public transport system and use it as a tool to restructure the Municipality and integrate marginalized areas. • Include Non Motorized Transport as essential components of land use and transport planning • Investigate new road and rail based network links. • Continue ongoing engagement with PRASA to explore potential of improving passenger rail service	• Around brown field developments: the strategy to create and introduce a vibrant mix of land uses and higher densities must be considered without impacting on the existing amenity of the area while at the same time supporting a more efficient public transport system. • In green field developments: the opportunity to density along public transport corridors remains prime with densities of varying intensity toward pure residential development. • Promote mixed use, working from home e.g. in the form of online work in zoning and land use management. • Identify and maintain non-motorized transport routes	• Integrated Transport Plan (2010/15) • EThekwini Housing Sector Plan (2011) • eThekwini Energy Strategy • EThekwini Environmental Services Management Plan • National Development Plan • Integrated Urban Development Framework (2016)
5. Implement Housing within the context of a sustainable and integrated development planning framework	• Encourage the implementation of housing as part of a broader strategy to re-structure and transform the present sprawling and inequitable urban form into a more compact, integrated and accessible environment. • Promote the development of well located areas and optimize the use of existing infrastructure • Ensure that movement system directly links with and is supported by strong high intensity nodes and higher density residential development. • Integrate land use with economic and transport planning • Encourage mixed use environments and non-residential uses in appropriate areas, namely, particularly in identified nodes and along transport corridors and interchanges.	When assessing new proposed housing developments the following issues must be considered: • Is the proposed development inside the Urban Development Line? • Is the proposed development in close proximity or within a walking distance to main public transport routes Is the proposed development within walking distance to main nodes and corridors? • Does the proposal benefit from good access to economic and social opportunities? • Does the layout encourage a grid road structure that provides logical and accessible public transport routes? • Identify mechanisms and processes to fast track the delivery and approval of	• Built Environment Performance Plan (BEPP)

		subsidized housing applications	
6. Develop an efficient and integrated freight transport system	• Investigate the feasibility of dedicated freight routes. • Ensure the reservation and availability of land for the development of the freight route. • Ensure that support for the freight route is attained with neighboring municipalities and other government spheres. • Improve the accessibility and efficiency of rail transport to allow for a move from road to rail in the longer term •	• In brown field developments, the freight route should be assessed against its impact on existing developments, and • In greenfields the freight route should be assessed against the future spatial role and intentions of the area. Land should be reserved for the development of the freight route.	

8.2.3 STRATEGY 3: Build and protect vibrant economic areas and lay a foundation for future economic development

This strategy is informed by the principle of enhancing (or harnessing) economic potential, co-ordinated planning and implementation. The strategy aims to promote and enhance the economic role of the EMA within the KZN province. This could be achieved in several ways including:

- Revitalisation of existing economic areas. Examples include Greater Durban and Pinetown CBD.
- Developing new economies (e.g. Cornubia, Umhlanga, Bridge City and Shongweni) and former townships (e.g. Umlazi Megacity and Clermont/ KwaDabeka Regeneration Project and Mpumalanga Town Centre).
- Facilitating emerging and informal economic activity for example Warwick Junction.
- Identifying industrial and business expansion opportunities in areas such as Cato Ridge, Inyaninga / Tongaat and Dube Trade Port.
- Improving freight and passenger linkages (as per the Integrated Rapid Public Transportation Network study recommendations)

Strategy 3 is elaborated further in the table below:

Table 12: Strategy 3 Policy Statements, Requirements And Land Use Management Guidelines

Build and protect vibrant economic areas and lay a foundation for future economic development			
Policy Statements	**Requirements to achieve policy statements**	**Land use management guideline**	**Alignment with policies**
7. Revitalize economic areas of major significance	• Encourage economic restructuring and development in existing and prioritized economic nodal areas and corridors. • Establish incentive for businesses to locate in established areas to avoid decentralization of businesses and increasing vacancy rates and declining amenity at the centre.	• Translation of the Municipality's economic Plan into the Schemes as it relates to market trends. • Updating and Review of the Schemes to promote emerging land uses. • Ensure quality environments as it relates to built form.	• eThekwini Economic Development and Job Creation Strategy (2013) • eThekwini Industrial Spatial Strategy
8. Develop new economic areas to	• Enable and encourage the promotion of a wide range of economic sectors to complement	• All new zoned land to continuously promote a variety of vibrant land uses that will promote the	

augment and diversify the economic base of EMA	each other • Promote the Green Economy including the generation of energy from renewable sources in the eThekwini municipal area. • Promote and manage investment into energy generation from renewable sources • Focus economic growth and job creation through investment nodes and tourism corridors	Municipality'svision and quality environments. • Consider energy generation from renewable sources in town planning scheme and related policies.	• Economic Review and the Industrial Strategy • eThekwini Energy Strategy
9. Develop spaces to facilitate economic activity which should encompass informal trading economy and SMME's	• Focus employment interventions to include the marginalized sectors of the population to support emerging and informal enterprises	• Introduce land use policies and mechanisms that will support the development of small business and allow for location of trading facilities in established market areas • Where appropriate ensure that the informal sector and small business opportunities are not excluded from formal economic development • Facilitate, support and extend agricultural production and distribution networks	
10. Identify appropriate industrial and business infill and expansion paths to accommodate demand	• Protect existing industrial land and identify new opportunities for Industrial development	• The Industrial development strategy must be used as a guide in assessing industrial development applications • Carefully consider the compatibility of proposed land use when assessing rezoning application especially in predominantly residential areas • Do not support growth of ad hoc industrial areas, use nodal areas, transport routes and service availability as guidelines	
11. Address spatial economic imbalance	• Ensuring there is spatial integration of investment for local economic development. • Development of LED strategies for key nodal and under-invested areas • Unlock employment generating opportunities in areas. that lack economic opportunities • Bring economic opportunities closer to where people live • Improve /establish access to facilitate that are of major importance • The development of nodes should take into consideration rural-urban linkages	• Support development initiatives in locations that are easily accessible especially to areas of need	

8.2.4 STRATEGY 4: Ensure eThekwini strategies and policies are proactive in responding to and promoting rural development, food security and agriculture

This strategy is informed by the principle of Balanced and Sustainable urban and rural development. This strategy provides the basis for integration of the rural areas into the mainstream growth and development of the municipal area. This includes understanding the nature of the space economy and how urban and rural activities support each other (e.g. agriculture and agricultural processing) and adopting policies that could strengthen this relationship (e.g. protect agricultural land from development and diversifying agricultural opportunities and rural economies). There is also the need to understand the roles of rural settlements in the space economy and promote future development that is supportive of this role. For this strategy, reference is made to the Draft eThekwini Rural Development Strategy (2016) and the proposed development of priority rural nodes i.e. Inchanga, Umbumbulu, KwaXimba, uMzinyathi and Umnini nodes.

The strategies formulated for the rural areas are aligned with the sector plans as contained in the IDP summarized here as follows:

- **Economic development**, facilitation of community based economic development with emphasis on skills development, agriculture support, cultural and eco-tourism and sustainable livelihood opportunities, renewable energy generation potential, public investment focused on rural service centres,
- **Transportation**, provided by the Integrated Public Transportation Network,
- **Housing and services**, providing appropriate rural servicing packages in line with affordability, sustainable use of natural resources and minimisation of environmental impact, public investment to be focused on rural service centres, provision of waterborne services in areas no longer classified as “rural”,
- **Environment**, securing threatened environmental areas on which the health of the urban periphery and core depend, promoting good land management via appropriate land use management and catchment management mechanisms, maximising open space opportunities for eco and cultural tourism, sustainable livelihood opportunities and agriculture.

- **Land Use Management and Institutional Arrangements**: preparing detailed plans that can be surveyed is the most obvious starting point in addressing the challenges associated with densities. This intervention will ensure that all the land spaces vacant and settled are properly accounted for through planning and meeting requirements of SPLUMA for wall to wall schemes. This process should take into account institutional strategies as the engagement of all stakeholders is crucial. The composition of teams should be such that the team undertaking the planning tasks includes social and GIS or surveyor skills who will account for all existing structures and the communities’ perceived boundaries. The settlement layout plan should clearly indicate the proposed densities from design point of view.

- **Servicing**: Servicing the areas based on the area character rather than tenure character.
- The municipality should ensure that services in denser areas are at appropriate levels so that such areas are sustainable. Prevalent tenure arrangement should not be a consideration in the

servicing of areas. Discussions and investigations are underway by servicing Departments to look for sustainable solutions to realise this.

- **Capacity Building**: Capacitating local stakeholders to manage land and densities effectively
- This strategy seeks to address the anomalies created by the different roles and responsibilities within land management. It is suggested that training programmes be developed in conjunction with COGTA to ensure that the traditional authorities are kept abreast of land management techniques. The training should include land restrictions e.g. servitudes, road reserves, environmental zones etc. Possible programmes will include training of ward committees, amakhosi, izinduna on environmental issues and road safety amongst other things

Table 13: Strategy 4 Policy Statements, Requirements And Land Use Management Guidelines

Ensure eThekwini strategies and policies are proactive in responding and promoting rural development			
Policy Statements	**Requirements to achieve policy statements**	**Land use management guideline**	**Alignment with policies**
1. Protect and enhance the city's rural environment	• Conserve critical environmental assets • Conserve good agricultural potential land for future food security and job creation • Prevent unconventional urban development from intruding into the rural environment	• Defend rural landscape • Support appropriate development and activities in rural areas	• eThekwini Municipality rural development framework (currently being updated) • eThekwini Energy Strategy • National Development Plan (2011)
2. Promote integrated and appropriate development in the rural periphery	• Facilitate sustainable and integrated service delivery, • Development of Human Settlements in line with National and Provincial Policies • Development of rural service nodes and rural corridors	• Develop a clear hierarchy of rural service nodes and corridors • Promote and support integrated housing development in rural areas	
3. Establish appropriate land use planning and management guidelines for rural development	• Clear understanding of the nature and role of rural areas within the wider eThekwini Municipal area • Extension of appropriate land use management tools or schemes	See details below of land use guidelines for the Umnini Rural Scheme Pilot Project. The rural scheme project will be rolled out in other rural areas across the Municipality.	
4. **Promote the opportunities of generating renewable energy in rural areas.**	• Investigate the potential of resources for renewable energy generation and appropriate technologies • Facilitate investment into renewable energies in rural areas	• Include and manage generation of renewable energy as an additional land use.	

The Umnini Rural Scheme pilot project takes into account the existing institutional arrangements and processes i.e. Ingonyama Trust Board (ITB) and Traditional Authorities. The introduction of the

scheme in Traditional Authorities will not replace the existing land administration system but rather enhance it. The Umnini Scheme has developed the following set of guidelines:

Table 14: Umnini Rural Scheme Land Use Guidelines

Land Use	Land Use Guidelines
Placement of buildings in relation to roads	For safety reasons all buildings should be set back from roads: • National Roads: 60m from edge of the fence line of the road • Provincial Main Roads: 30m reserve and 15m building line • District roads: 20m road reserve and 10m measured from the edge of the road reserve boundary. • Local Roads: 10m road reserve and 5m building line • Un-surveyed Main Roads: 30m measured from the approximate centre line of the road or 16m from approximate edge of the road • Un-surveyed District Roads: 20m measured from the approximate centre line of the road or 11m from approximate edge of the road • Un-surveyed Local Roads: 10m measured from the approximate centre line of the road or 6m from approximate edge of the road
Imizi	• Adequate space about buildings for future installation of services. • Cluster residential development together to retain land for agricultural development, minimize impact on sensitive environmental areas, and facilitate efficient provision of basic services. • Cluster houses near interSections and places with good access to road network so that people can access public transport. • Access to individual houses off busy main roads should be limited. • Access should be gained off side roads where the interSection of the road with the main road has been approved by the Municipal Civil Engineer. • Access off Provincial Roads requires the permission of the Provincial Department of Transport in terms of the KwaZulu-Natal Provincial Roads Act, Act No. 4 of 2001. • Demarcate adequate space for grazing land, cattle vaccine, dipping and dosing
Crèches	• Baby care – less than 6 infants. • Crèche – 6 or more children. • Need access to clean water for cooking and cleaning, as well as access to toilet facilities.
Pension pay points	• These may be associated with community halls, shops, post offices, or an open space. • A waiting/queuing area should be provided away from the road so that queues do not encroach into the road. • A place should be provided for parking of vehicles off the road. • A space should be provided for the traders that set up stalls on pension day. This should be located away from the road to ensure safety of traders and shoppers.
Tuck Shops/ Farm stalls / spazas	• If separate from the homestead, the building must be set back from the road as recommended above. • Any facility larger than 25m^2 is classified as a shop and requires the permission of the municipality as well as the Traditional Leader structures. • If loading is part of the operation adequate off road space must be provided to accommodate the delivery vehicle.
Taverns	• May not be located near schools, churches or crèches. • All applications must be referred to the Municipality who will only consider applications by the Special Consent, with full advertisement; which Special Consent may be withdrawn on sufficient complaints by neighbours or the surrounding community.
Home Businesses	• Should generally be facilitated as long as the predominant use of the building/s remain residential and the impact on neighbours is not onerous.
Cell masts	• No approval without an EIA and the granting of environmental authority from the relevant Department. • Consideration must be given to potential impacts on views and health of children.
Steep slopes	• No development on slopes steeper than 1:3 without a full geotechnical study and a certificate from a suitably qualified professional.

Land Use	Land Use Guidelines
Stream valley protection	• No development within an appropriate buffer from the boundary of wetlands and riparian areas as determined by Environmental Planning and Climate Protection Department, Development Planning, Environment and Management Unit, eThekwini Municipality
Sand winning	• No sand-winning without an EIA and the granting of environmental authority from the relevant Department that takes into account the impact on the river as well as the impact of access by trucks to and from the site. • Special consent of the Municipality is also required.
Storm water management	• Any development, particularly hardened surfaces increases storm water run-off that must be accommodated to prevent erosion and potential flooding hazards • Any development on a site must include some natural ground or vegetation to absorb run-off. A rough guide is that 25% of the site should be set aside as natural ground, planting or landscaping • Wetlands and reed beds to be protected to assist in storm water management.

8.3 Spatial Monitoring and Evaluation

The White Paper on Local Government (1998), states that "integrated development planning, budgeting, and performance management are powerful tools which can assist municipalities to develop an integrated perspective on the development in their area. It will enable them to focus on priorities within an increasingly complex and diverse set of demands. It will enable them to direct resource allocation and institutional systems to a new set of development objectives"

Furthermore, the Municipal Finance Management Act of 2003 (MFMA) obligates a municipality to complete and adopt the Service Delivery and Budget Implementation Plan (SDBIP). The SDBIP links the IDP with the municipal budget and is based on specific targets and performance indicators derived from the IDP. Section 67 of the MSA also highlights the monitoring, measuring and evaluating of performance by the municipalities. Similarly, for eThekwini Municipality, the monitoring and evaluation of the impact of the SDF is an on-going process that is inclusive, interactive and involves consultation with various stakeholders (internal and external). This process is viewed by the municipality as being critical in that it identifies areas that need improvement, identifies priorities and interventions.

The monitoring and evaluation process also involves the identification and allocation of roles and responsibilities for different role players while at the same time documenting all the activities that are taking place as part of the SDF review process. The SDF reporting is done through the SDBIP annual reporting and municipal Annual Balanced Score Card system Spatial Monitoring, Evaluation and Spatial Targeting are highlighted in the Capital Investment Framework section outlined below.

8.4 Capital Investment Framework

8.4 .1 The Municipal Infrastructure Investment Framework

The municipality has embarked on a Municipal Infrastructure Investment Framework for the city. The municipality is committed to ensuring that all backlogs in the provision of infrastructure are removed.

However, this must be done in such a way so as to ensure that the municipality, which is at the forefront of infrastructure delivery, remains financially viable and have the capacity to operate and maintain this infrastructure.

The Municipal Infrastructure Investment Framework (MIIF) thus aims to establish:

- The extent of infrastructure to be provided;
- The capital expenditure required to provide this infrastructure;
- The extent to which financing is available for this capital expenditure;
- The operating expenditure required to ensure that the infrastructure provided is properly operated and maintained;
- The extent to which revenue can be raised to cover this operating expenditure, within the provisions of the Municipal Fiscal Framework.

The framework also considers the monitoring systems required to assess progress with respect to infrastructure delivery as well as processes to ensure that systems and management capacity are in place in municipalities to manage the infrastructure, with the emphasis on a municipal infrastructure asset management strategy. The Capital Investment Framework (CIF) outlines the capital projects and priorities which the Municipality will undertake within the next five years. The capital projects and priorities are as a consequence of strategies and goals set by the Municipality in order to achieve the desired outcomes and vision.

The Capital budget is directly informed by the needs submitted by the community through the IDP process. The capital budget continues to reflect consistent efforts to address backlogs in basic services and the renewal of the infrastructure of existing network services.

8.4.2 Overview of past capital budget allocation and expenditure

The table below indicates the Capital spend on 'Basic Service Delivery' items over the past three years. One will observe that the bulk of the Capital is spent on 'Basic Service Delivery' infrastructure. This pattern of expenditure is expected to be maintained for the foreseeable future.

Capital utilised for Infrastructure

Human Settlement and infrastructure	**2011**	**%**	**2012**	**%**	**2013**	**%**	**2014**	**%**	**2015**	**%**
Housing and Hostels	41,617		657		50,066		64,029		361,592	
Roads and Storm Water (Engineering)	921,411		1,056,450		928,350		971,865		862,771	
Transport (ETA)	71,444		120,772		198,586		296,182		875,203	
Procurement	384		252		208		233			

Sanitation	350,972		426,008		576,599		822,062		583,041	
Solid Waste	87,452		159,435		139,732		140,061		66,146	
Water	1,084,772		292,975		282,492		838,044		815,638	
Electricity Services	585,308		567,382		606,097		526,070		541,797	
	3,143,360	83	2,623,931	75	2,782,130	80	3,658,546	87	4,106,188	88
Total Capital	**3,774,138**		**3,484,739**		**3,468,713**		**4,201,622**		**4,686,556**	

The table below indicates the actual borrowings and the future loans to be taken to continue the service delivery programme.

	Actual	**Forecast**		
	2015	**2016**	**2017**	**2018**
	R'm	**R'm**	**R'm**	**R'm**
Total debt	**10,241.0**	**10,253.0**	**10,143.0**	**10,220.0**
Loans Raised	**1,500.0**	**1,000.0**	**1,000.0**	**1,000.0**

Over the MTREF period gearing reduces to 32%.

Approach to Longer Term Borrowing

Long term borrowings in eThekwini have been mainly in the form of annuity loans, with a significant proportion borrowed from the Development Bank of South Africa and financial institutions. The dominance of annuity loans within eThekwini's borrowing portfolio is largely due to the ability of the City to source competitive interest rates from financial institutions. While a bond issuance is a viable option for eThekwini, in part due to an excellent credit rating of AA annuity loans are preferred.

This is because they are a cheaper source of finance and are less risky for the City, as the principal is paid over the duration of the loan instead of a bullet payment at the end of the term. The City has in the past preferred fixed interest rate annuity loans as they eliminate interest risk associated with variable rate loans.

The eThekwini Municipality's loan requirement for 2015/16 is R 1.0 billion, and it is anticipated that this loan will be drawn down by the 30 June 2016.

8.4.2.1 Capital Allocations

The Capital Budget from 2006/07 to 2009/10 increased by 56% cumulatively to fund increased expenditure on major infrastructure (Roads, Electricity, Water & Sanitation) as well as World Cup 2010 related projects.

The capital budget totaled R5.4 billion in 2010/11. This was funded by National and Provincial grants in the amount of R2.1billion and R1.0 billion being funded from Council's internal sources, with the balance of R2.3 billion from external sources.

The 2010/11 capital budget allocation decreased by 22.8% amidst concerns about eThekwini being over-geared and hence needing to limit further borrowing. This also comes in the context of the global recession and the potential for a decline in revenue due to households' economic circumstances.

8.4.2.2 Capital Sources

In order to contribute funds for future capital expenditure and to reduce dependence on borrowed funds, a Capital Replacement Reserve has been established, and funded from the following sources:-

- Any betterment achieved from budgeted Water and Electricity operating results, including savings achieved through reductions in losses in distribution
- Any betterment in Rate and General operating results
- Dependentnt on the impact of tariffs, an additional contribution will be considered

To maximize additional revenue sources, the following will be pursued:-

- Maximize investment rates, especially on call account
- Development charge
- Grant income to be maximized

Borrowing indicators

R million	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
Borrowings	5,322. 8	6,070. 3	8,674. 6	10,110. 4	10,679. 0	10,642. 0	10,248. 0	10,241. 0
Gearing Ratio (%)	34. 9	35. 6	46. 3	50. 9	45. 5	39. 9	46.0	41.0
Finance Charges	513. 8	598. 5	690. 8	687.3	855.0	1,152. 0	819. 0	897.0
Capex	4,724. 6	5,987. 7	6,493. 6	4,614.8	4,088.6	5.285.2	4.202.0	4.687.0
Internal Capex Funding	1,739. 8	2,830. 0	1,828. 6	979. 1	583. 1	482. 6	661.0	907.6

8.4.2.3 Capital Expenditure

Investment in urban infrastructure is important for the development of the local economy, combating poverty and the provision of universal access to municipal services. Rapid inward population migration, declining household sizes and greater economic activity places pressure on existing municipal infrastructure and require larger investments in the periods ahead. In addition to the rollout of service delivery infrastructure, the municipality's capital expenditure is also directed towards economic stimulus and job creation.

The capital budget is directly informed by the needs submitted by the community through the IDP process. In view of borrowings being maximised and the present economic climate, the high levels of capital expenditure cannot be sustained.

8.5 Capital Budget Summary

CAPITAL BUDGET - HIGH LEVEL SUMMARY PER UNITS

DESCRIPTION	PROPOSED BUDGET 2016/17 Rm	PROPOSED BUDGET 2017/18 Rm	PROPOSED BUDGET 2018/19 Rm
HUMAN SETTLEMENTS & INFRASTRUCTURE	**5,242.423**	**5,375.215**	**5,491.364**
Housing	1,200.400	1,137.686	1,172.727
Engineering	713.185	689.512	717.451
Water	785.628	791.134	820.698
Sanitation	617.900	667.921	704.208
Solid Waste	126.271	145.527	145.527
Electricity	666.152	691.100	692.708
ETA	1,132.886	1,252.335	1,238.046
COMMUNITY EMERGENCY SERVICES	**461.273**	**602.442**	**598.979**
Establishment of parks & gardens	20.970	32.759	24.250
MIS (agriculture, community gardens, fish ponds)	5.473	2.221	6.000
Sports fields	33.976	54.592	29.500
Infrastructure projects (including common wealth games)	3.300	3.000	3.000
Community Halls	7.530	21.820	15.500
Cemeteries	13.359	19.313	10.000
Libraries	134.590	305.654	329.256
Pools and Beaches	35.023	23.469	10.000
Museums & Art Galleries	90.882	48.868	66.459
Clinics	34.939	5.195	17.214
Emergency Control & Disaster Management	14.831	13.340	8.900
Fire & Emergency Services	55.380	68.600	73.400
Plant and Equipment	9.605	3.610	5.500
Security Management	1.412	-	

ECONOMIC DEVELOPMENT & PLANNING	**287.351**	**378.788**	**489.584**
Economic Development	176.261	257.418	378.409
Business Support	56.615	34.790	1.000
D'MOSS	2.825	3.500	3.675
Markets	21.250	32.080	24.500
Urban Renewal	30.400	51.000	82.000
TREASURY	**236.440**	**287.105**	**207.731**
GOVERNANCE	**25.601**	**19.074**	**19.074**
CORPORATE HUMAN RESOURCES	**4.799**	**4.300**	**4.300**
OFFICE OF THE CITY MANANGER	**368.251**	**381.354**	**360.575**
Information Technology	116.983	122.752	92.310
Metro Police	5.915	0.300	1.800
Others(legal ,Risk, Audit and Ombudsman)	0.353	1.302	1.765
Zonal Plans - Block sum	245.000	257.000	264.700
TOTAL	**6,626.138**	**7,048.276**	**7,171.607**

8.6 2016/17 Budget Overview

The 2016/2017 Medium Term budget is a total consolidated budget of R 41.6 billion which has been developed with an overall planning framework and includes programmes and projects to achieve the city's strategic objectives. This budget was set against the background of slow economic growth, rising debt & higher interest rates where tough fiscal choices had to be made. Economic challenges will continue to pressurise municipal revenue generation and collections in 2016/17, hence a conservative approach has been adopted when projecting expected revenues and receipts. Despite increasingly challenging circumstances, we continue to sustain service delivery through this budget by reprioritising expenditure to ensure key objectives are achieved. Provisions in this medium term budget continue to support government's commitment to broadening service delivery and expanding investment in infrastructure, while taking into account the constrained fiscal environment. This budget has been developed to contribute to the municipality achieving the strategic objectives of the IDP and SDF. The 2016/2017 MTREF is informed by the municipality's long-term financial strategy with emphasis on affordability and long-term sustainability. National Treasury's MFMA Circular Nos. 78 & 79 were used to guide the compilation of the 2016/17 MTREF. In addition, this budget format and content incorporates the requirements of the Municipal Budget and Reporting Regulations. The budget also takes into consideration the incorporation of new wards into the municipal area.

The following budgeting PRINCIPLES were applied in formulating the medium term budget:

- Sustainable, affordable, realistic and balanced budget
- Realistic and achievable collection rates
- Major tariffs to be cost reflective, realistic and affordable
- Budget to contribute to achieving strategic objectives of the IDP
- Loans to be sustainable and affordable and utilised for capital projects only
- Balancing capital expenditure for social, economic, rehabilitation and support
- Need to ensure rates based growth to ensure sustainability of free basic services
- Income/ Revenue driven budget: affordability i.e. if funds do not materialise review expenditure
- Holistic: account for basket of goods & services provided, they are needs driven into the IDP

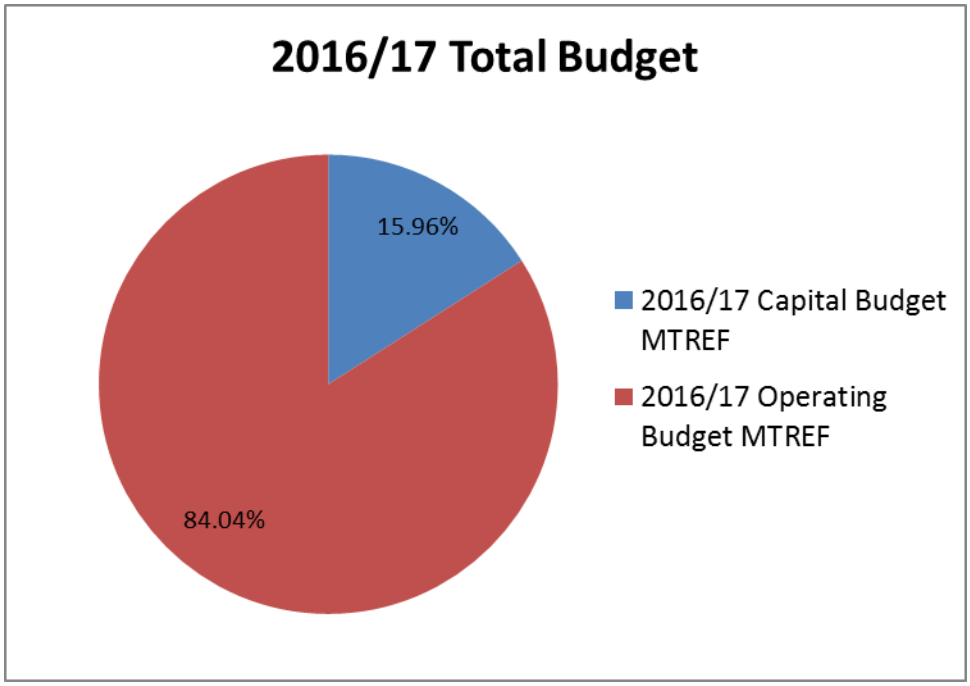


Figure 95: 2016/2017 Total Budget R41.6 billion

This budget seeks to continue addressing the backlog in infrastructure and service delivery in order to deliver for all. The municipality is committed towards ensuring that the limited financial resources are maximized for service delivery. This infrastructure roll-out will allow the municipality to focus on creating the economic environment in which investment thrives and jobs can be created. This budget has also been developed within an overall planning framework and includes programmes and projects to achieve the municipality's strategic objectives.

8.6.1 Strategic Priorities for the 2016/2017 Year

The municipality has identified the following priority areas to be addressed during the 2016/17 financial year.

- Service delivery backlogs;
- Human settlements;
- Economic development
- Financial sustainability;
- Mitigation and adaption of the municipality for climate change;
- Water challenges;
- Access to public transport;
- Human capital development;
- Energy challenges;
- Health of society;
- Food security;
- Sustainable spatial form;
- Rural development;
- Infrastructure degradation;
- Undermining natural capital;
- Safer city

8.6.2 2016/17 Capital Budget [Medium Term Revenue and Expenditure Framework (MTREF)]

Capital expenditure is budgeted to rise to R 6.73 billion in 2016/17 and thereafter to R 7.11 billion in 2017/18 and R 7.22 billion in 2018/19**.** R 14.8 billion (approximately 71%) is allocated to meeting infrastructure and household services needs and backlogs over the medium term. R 3.4 billion of this is directed to new housing developments and interim servicing of informal settlements. The capital budget continues to reflect consistent efforts to address backlogs in basic services and the renewal of the infrastructure of existing network services.

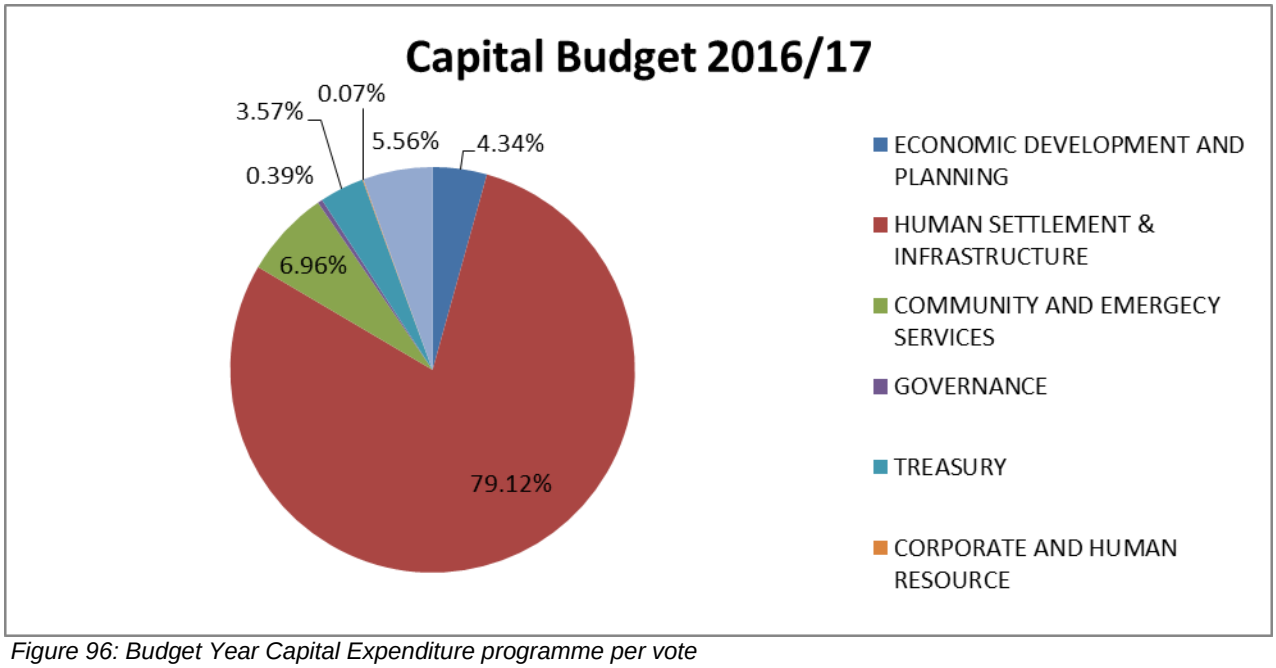


Figure 96: Budget Year Capital Expenditure programme per vote

The following are some of the Major Capital programmes, which have been included in the Medium Term Capital budget:

PROJECT / ITEM	R' m
Low cost Housing and Infrastructure	3 351.8
EThekwini Transport Authority (Including PTIS)	3 623.3
Electricity Infrastructure	1 781.8
Addressing Community Service Backlogs	1 012.5
Water Loss Intervention Programme	120.0
Roads Rehabilitation and Reconstruction, and New Access roads	1 621.7
Wastewater Treatment Works: Upgrades/Expansion	644.6
Northern Aqueduct – Water	610.7
Western Aqueduct – Water	338.0
Solid Waste Fleet Replacement	151.8
New Central Library	593.5
Ablution Blocks-Upgrade: Informal Settlements	711.4
Town Centre Renewals – Nodal developments	212.5

8.6.3 Economic / Social Development

The city's Economic Development strategy has set the city on a development path that prioritises investment in infrastructure and promotes private sector partnerships and investments.The recently adopted Economic Development Incentive policy seeks to attract development to the city by offering incentives with a long term view in growing city revenue. Accordingly, the key focus of capital expenditure activities (in addition to service delivery capex) is on catalytic projects which boost rates and services income for the municipality while also creating employment and improved accessibility. To this end major investments are planned for the Inner City and a total of R 26 billion is being invested in the Cornubia mixed use development. As part of the Urban Regeneration Plan, the municipality has embarked on a R460 million plan to revitalise the Isipingo Town Centre and unlock the areas full economic potential. The city is considering a proposal received for the redevelopment of the Virginia Airport site into a mixed-use development with hotels, offices and upmarket houses. This site has been assessed as a catalytic project which the city aims to redevelop and reintegrate with its surrounding nodes. Another exciting project in the pipeline is the Centrum site development within the Inner City which aims to develop a new mixed-use precinct. The objective includes developing new public service buildings such as the central library and natural science museum municipal complex and Government Boulevard.

Being the busiest port in Africa and the chain driver of local economies, the municipality is looking into ways to unlock the regions ocean economy potential and to position Durban as a "smart port city " in order to accelerate growth in the local, provincial and national economy. This includes exploring the area around the port for manufacturing that would increase exports and create job opportunities as well. In this regard there are expansion plans to increase the volume of container trade. The city is currently focusing on the biggest infrastructural project it has ever undertaken, the integrated rapid

transport plan (GO! Durban) to ensure a world class transport system. The R 20 billion transformation of Durban public transport system is expected to connect 600 000 commuters across the city to nine public transport corridors by 2027. The plan will ensure a safe and easily accessible transport network and integrate motorised and non-motorised transportation. The municipality has recently announced a R 280 million interchange to link the Cornubia development and the Umhlanga precinct. The interchange was integral to the city's proposed rapid public transport system (Go! Durban) and is expected to alleviate traffic congestion on the M41. The second phase of the Western Aqueduct, the city's biggest ever bulk water pipeline is more than half way complete and is progressing well, being on target for completion in 2017. This project will significantly increase the capacity of the bulk water supply and meet the needs of the greater eThekwini region for the next 30 years.

In order to support economic growth in the city, council has recently adopted the Integrated Freight and Logistics strategic framework and action plan for eThekwini. In this regard, the Clairwood Logistics Park is to be developed to meet the growing demand for A-grade logistics and distribution facilities in the south of the city. It is expected to create an estimated 19 000 jobs during the four-year construction period and more than 4 500 jobs after completion. Further, a R 6 billion economic catalyst project, Keystone Park is being developed as a logistics and light industrial precinct at the Hammarsdale interchange. The construction phase is expected to create 3,500 jobs and over 6,000 direct jobs during operations. In order to address the challenge of road congestion by trucks collecting cargo from the port, plans for a dry port to handle container and bulk cargo in Cato Ridge are slowly taking shape. Cargo will be transferred from the port via rail line to trucks that will pick up at Cato Ridge. There are also plans to develop the Cato Ridge logistics Hub which will include mega truck stop facilities, containers and car terminals, tank farm, and industrial and commercial development. The project is considered to be a catalyst and is expected to create employment opportunities.

The announcement that Durban will host the *2022 Commonwealth Games* is expected to catapult the city onto the global platform for the next 7 years from which a multitude of economic and social benefits may be reaped. These benefits include exposure to world markets to attract and enhance tourism and foreign direct investment. The event – which is taking place for the first time on African soil - is expected to generate up to R20 billion to the national economy, translating into an additional R11 billion gross domestic product growth and is expected to add approximately R2-billion to the local economy.

8.6.4 Capital Funding and Projected Expenditure

In terms of funding the capital budget, the municipality is in a fortunate position to undertake much needed service delivery programmes from both internally generated reserves and long term external funding. In the latter case, the municipality with its sound financial credentials has financing options available that are in line with the MFMA and the Municipal Borrowing Framework. Section 45 of the MFMA guides short term borrowing in the city.

In line with the anticipated budget performance, and taking into account the National and Provincial grant allocations, the municipality will continue to fund each financial year's operating budget from current revenues.

Investments for the municipality are done in accordance and adherence with the Municipal Investment Regulation of the MFMA, Councils Investment Policy and other relevant legislation. Cash flow forecasts and cash needs by the city provide guidance for the type of investments employed.

The investments are made with primary regard to the risk profile, liquidity needs of the city and the return on investments. In so far as the investment and borrowing activities are concerned, all the requirements of the MFMA have been complied with.

The ability of the eThekwini Municipality to deliver on progress depends a lot on its funding sources which are summarised as follows:

	2015/2016 RM	**2016/2017 RM**	**2017/2018 RM**
Total Capital Budget	**6,626**	**7,048**	**7,172**
Funded as Follows			
Grant Funding	3,748	3,959	4,039
Internal Funding	1,878	2,089	2,133
External Funding	1,000	1,000	1,000
	6,626	**7,048**	**7,172**

R6.6 billion in 2015/16, R7.048 billion in 2016/17 and to R7.172 billion in 2017/18. The following diagram reflects the proposed capital expenditure program over the next three years by vote:

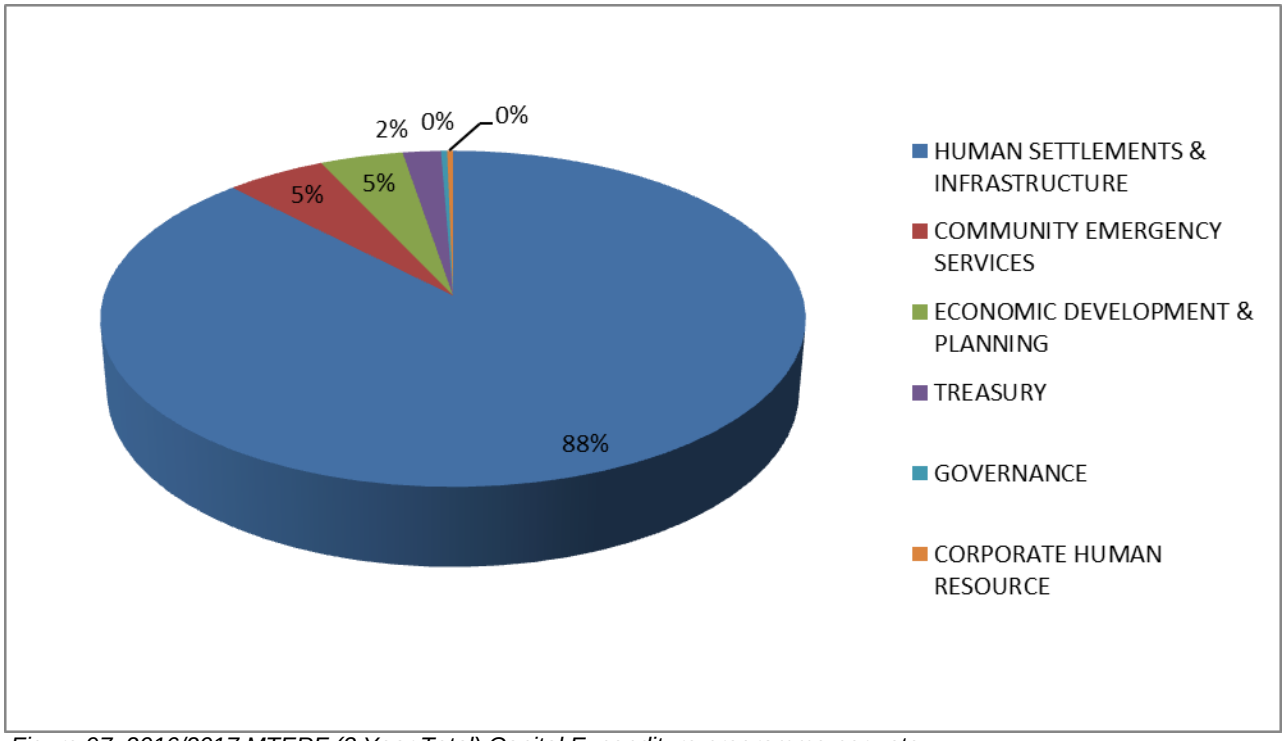


Figure 97: 2016/2017 MTERF (3 Year Total) Capital Expenditure programme per vote

The Municipal Integrated Development Plan (IDP) Review 2016/17; Medium Term Revenue and Expenditure Framework (MTREF) 2016/17 and the Service Delivery and Budget Implementation Plan 2016/17 will provide extensive details on all current projects.

8.7 Spatial Planning Priorities and Budget Alignment Processes

8.7.1 Strategic Level Assessment

A significant amount of work has been undertaken by the eThekwini Municipality in attempting to align spatial planning priorities and inform the city's budget.

In 2007, based on initial work done on the SDF/SDP's, a strategic level assessment was made of the bulk infrastructure required to support the future growth of the municipality. The assessment revealed that the North region (north of the Umgeni River to the Tongati river boundary) within a city-wide context, offered the greatest potential for new development and hence the largest opportunity for expanding the municipal rates base. The reasons for this, was that in the metropolitan context, the North region was anticipated to yield the greatest proportion of new low income housing construction. It was also projected that 73% of the metropolitan residential growth, 88% of mixed use (a mix of commercial, office and residential land use) and 34% of industrial expansion would occur in the North region. Economic development was focussed in the North region and it was considered that this trend would be likely to continue for the foreseeable future with the construction of flag ship economic projects such as the Dube Trade Port.

The North comprises a number of waste water treatment catchment areas. Of these catchments it made financial, engineering and planning sense to focus development in the Ohlange catchment. Furthermore, from an infrastructure network perspective it was considered preferable to incrementally grow the network outwards rather than to provide infrastructure to 'islands' of development beyond the current urban area. The Ohlange catchment exhibited an excellent mix of private development (which provided for the expansion of the municipal rates base) and public housing development (which is not rateable but which addresses social and equity priorities.) In the North region, the Ohlange is the only catchment where development was not being severely constrained by the uncertainty around how much treated sewage effluent can legally be discharged into the municipal river systems. The non-completion, by the Department of Water Affairs & Forestry at the time, of these river reserve determinations was effectively holding back bulk infrastructure planning for the Umdloti and Tongati catchments which lie north of Ohlange. This combination of factors made the Ohlange the prime catchment in which to focus development to 2010/11. Through the provision of the necessary infrastructure, the following development would be facilitated in the Ohlange catchment:

- 44 500 Low Income Housing Units
- 31 200 Private Residential Units
- 1.045 million square metres Commercial / Office (Mixed Use)
- 175 ha Industrial

It was noted that much of the bulk infrastructure required to serve this new development had lead times of 3-4 years. Even though 2011 was the likely year for this new infrastructure capacity to come on stream, there were approximately 2000 sewer connection approvals already granted to cover developments that would be completed prior to 2010/11. It was also considered unlikely that public sector housing in the Verulam and Tongaat areas would be stalled since there was spare capacity in the Verulam and Tongaat sewerage treatment works at the time.

The package of infrastructure required to service the above development was then split into 'essential' and 'supporting' infrastructure for the purpose of minimising the immediate investment required. Considering the 'essential' infrastructure items, the additional capital monies required were estimated noting the commitment required by Council and other external bodies. A number of funding options were then identified and it was recommended that, *inter alia,* municipal officials assess all infrastructure within the Ohlange catchment in more detail to determine which developments would trigger the need for each infrastructure project and that the detailed analysis undertaken for the Ohlange catchment be undertaken for other catchment.

Aligning the budget with the development needs of the city has subsequently been undertaken at

- a community level
- nodal level and,
- Spatial Analysis of the budget
- implementation using a variety of spatial targeting instruments

8.7.2 Community Level- Development and Budgeting

Zone Plans have been prepared for the entire municipal area. Zones Plans indicate 17 zones (or clusters of wards) across the municipal area. Profiles of 'Need' have been developed for each Ward /Zone together with the Capital Budget Spend in each Ward/Zone which details 'Delivery'. 'Need' has been determined from the socio-economic information for each ward / zone and from expressed community priorities. Using the ward / zone profiles, the municipality has been able to map spatially the areas of "Need" and compare this with the "Delivery of Services" as a means of aligning the municipal budget to the developmental needs of communities. The analysis of the "Need" that exists within these geographic units (Ward & Zone Profiles), allows the municipality to assess how well it is "Delivering" in relation to the "Need", to identify the "Gaps" and determine the local area priorities. The analysis has revealed that some Developmental Needs are not adequately funded and the big gaps are largely around economic development/job creation/skills, health & welfare, safety & security and services to informal settlement.

- The greatest Developmental Need exists in Zones 2, 3 & 10. Accordingly, these Zones should receive high priority in the Capital Budget based on the geography of "Need" - an indicator ıt, income, infrastructure backlogs and social facility backlogs.

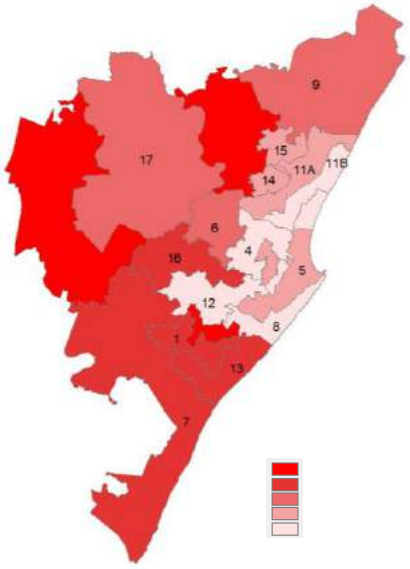


Figure 98: Geography of Need

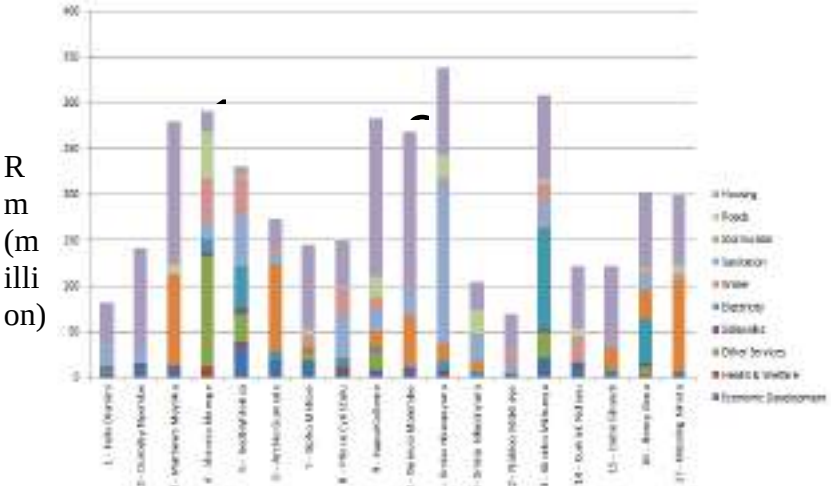


Figure 99: Breakdown of 2012/13 Capital Budget by Zone

As of February 2013 a new process was proposed. This entails an analysis of 'Need' versus 'Delivery' in the 17 Zones for 2013/14-2015/16 budgets for 'Community-facing' projects (such as roads and sidewalks etc), obtain candidate projects and engage at a zone level with a view to finalising the Zone Plans and obtaining Council approval of the Zone Plan and Community Block Sum

8.7.3 Nodal Level – Unblocking Development Process

With the completion of the SDF/ regional SDP's in 2009, a number of Phase 1 Spatial Investment Priority Areas were identified for development in the next 5 years. The following map is the spatial

representation of the priority areas for each region and the estimated cost as at 2009 estimates, required to unlock their development:

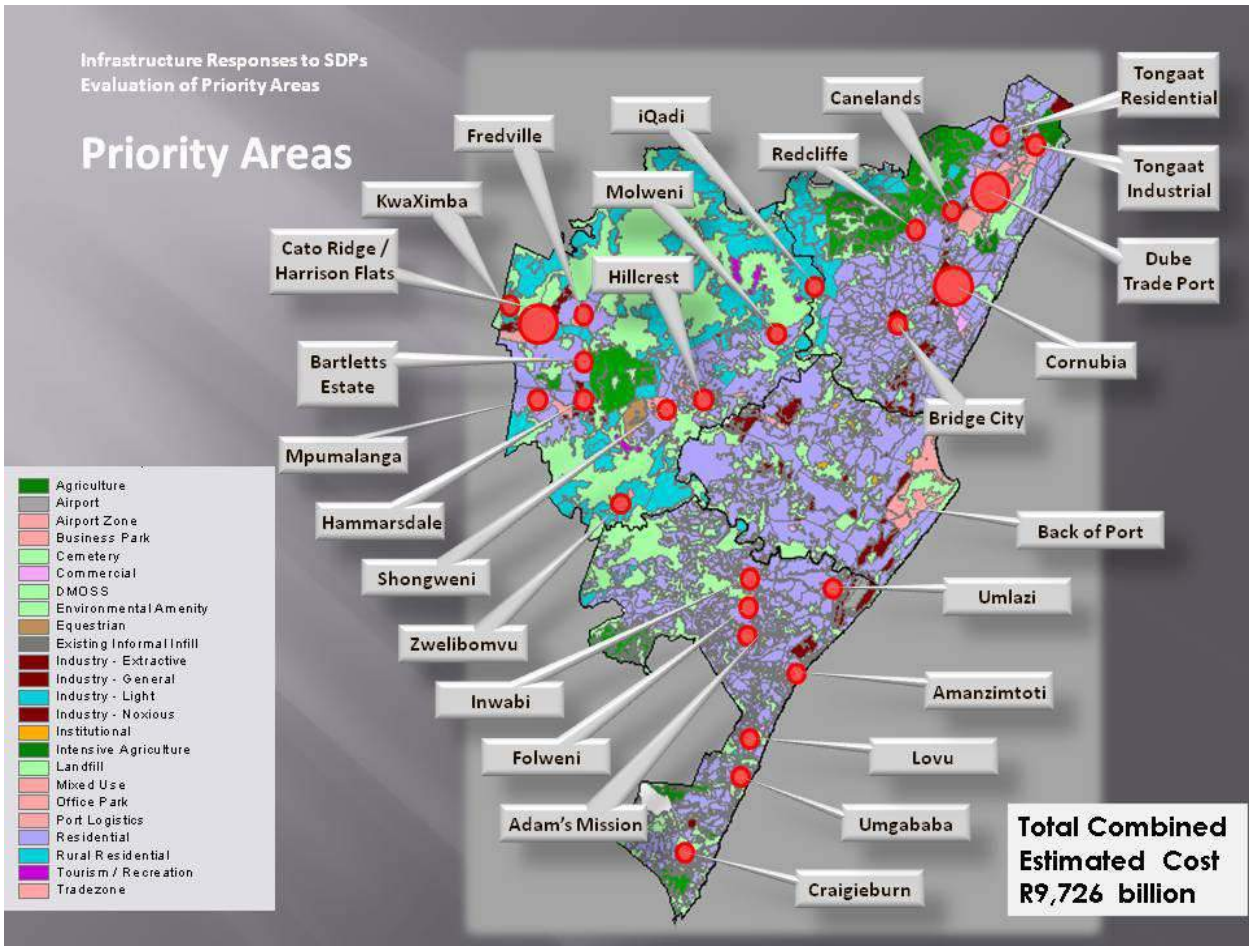


Figure100: Spatial Priority Areas
(Subject to phasing and service limitations)

8.7.4 Current Projects as per the Spatial Priorities

Numerous processes have been undertaken to refine these strategic priorities and better inform the budget requirements each year. Accordingly, of the 26 phase 1 priorities identified in the SDF/SDP's, the following were subsequently identified as key priority investment areas in both rural and urban areas across the city and are shown in Figure 101 below:

Key Priority Investment Areas (Urban)	**Key Priority Investment Areas (Rural)**
• *Inner City Regeneration (1)* • *Tongaat / DubeTradePort and Surrounds / Cornubia (Aerotropolis) (2)* • *Cato Ridge / Keystone / Hammarsdale (SIP2) (3)* • *South Illovo (4)* • *Port and Back of Port (5)* • Land Uses to support IRPTN/ densification	• *Mpumulanga* • *KwaXimba* • *Inchanga* • *Mzinyathi* • *Umbumbulu* • *Umnini*

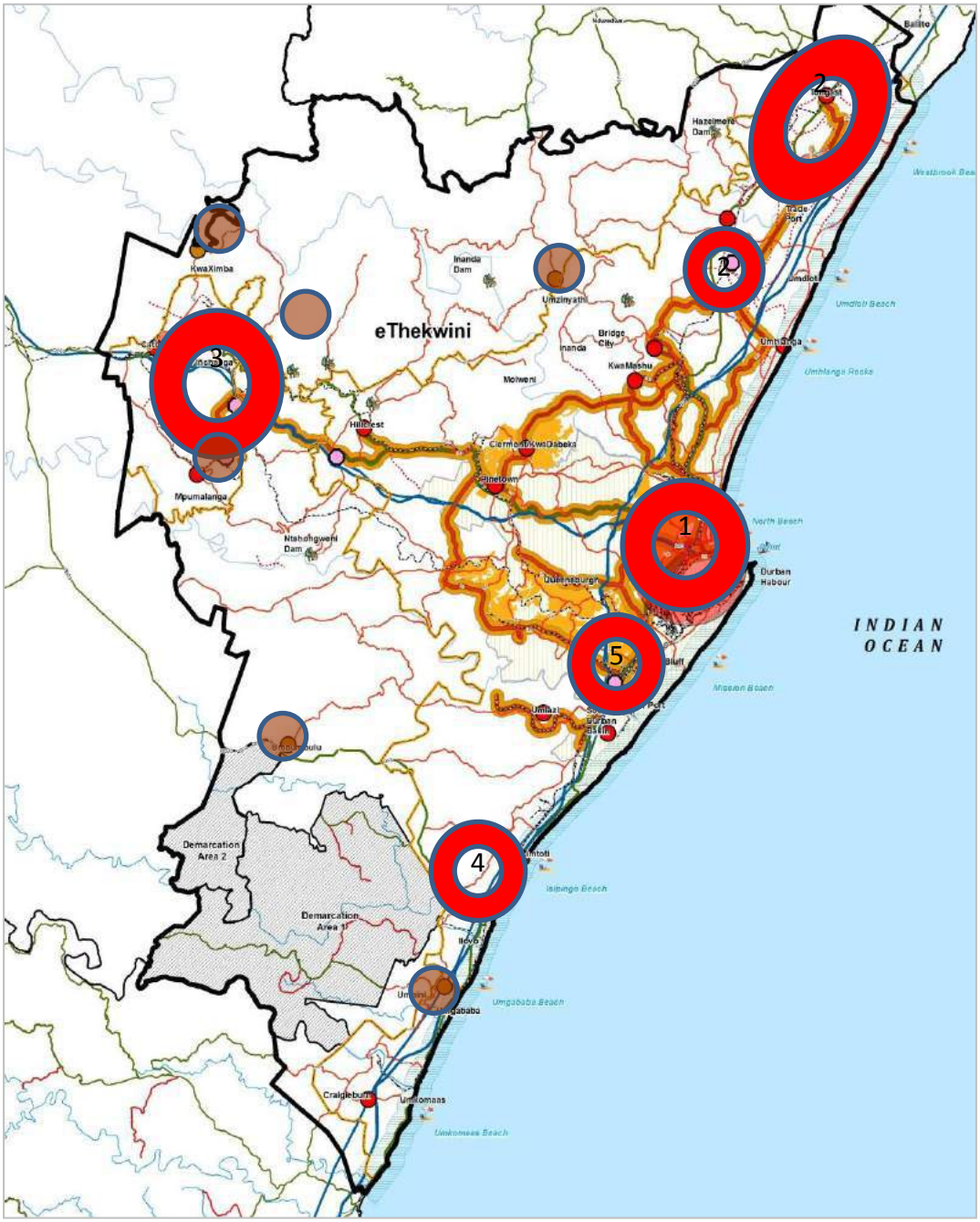


Figure 101: Key Urban and Rural Priority Investment Areas

The following steps were undertaken as part of the process towards informing these key priorities areas:

Step 1: Strategic Level Bulk Infrastructure Assessment: A strategic level bulk infrastructure assessment of the 26 phase 1 priorities revealed that these areas require various degrees of infrastructure provision to support the development that is envisaged and in some cases, based on resources and budgets and the cycle of planning, designing and implementing infrastructure, may even go beyond the envisaged short term priorities (5 years). Since 2009, the infrastructure assessment of the Phase 1 priorities has focused on refining the data base information and priorities across sectors, with particular focus on the following:

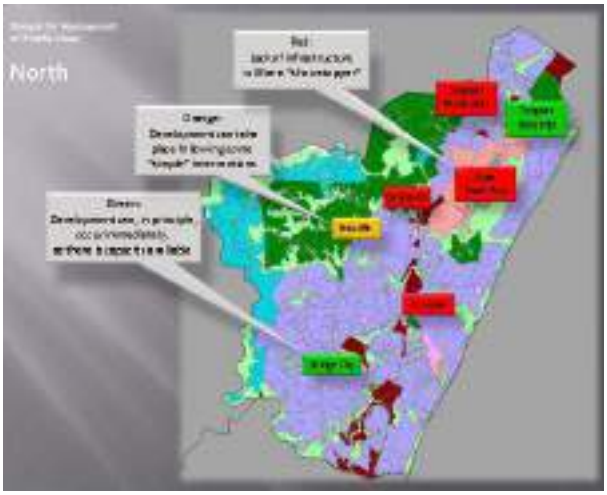
- Establishing current development pressures and realistic take up rates in the various regions to "ground truth" and further refine the anticipated phasing of development within each region in order to inform the likely demand for infrastructure.
- Refining the criteria for prioritization by establishing which sectors of the economy will make the greatest impact on job creation and regional wealth and determining which geographic areas require infrastructure in order to meet the city's imperatives of reducing unemployment. This process was trying to reach alignment across sectors in terms of the priorities identified
- Establishing upfront the availability of excess infrastructure capacity and the areas in which development opportunities could be provided in the short term while new infrastructure was being built;
- As a further criterion for prioritization investigating the opportunities for spatial restructuring including how the municipality might support public transport corridors and housing densification around these corridors;
- Understanding and responding to the public housing and basic services programmes since these are reliant on bulk infrastructure and establishing how to spatially align the demands for infrastructure provision for housing and the 26 priorities originally identified;
- Further investigating opportunities to grow the municipal rates base which in 2009/10 grew by a mere 1%. If the rates base does not expand it begins to limit the ability of the municipality to maintain and expand its social programme.
- Several meetings have been held with the key municipal sectors to inform more realistic development phasing based on likely demand and in particular growing the rates base and prioritisation public housing initiatives with impact and scale.
- In addition, consideration has also been given to private sector plans and the likely take up rates in the Phase 1 priority areas with a view to seeking greater alignment in unlocking the development potential of these areas.

Step 2: Identification of Catalytic Projects: Of the 26 phase 1 priorities identified in the SDF/SDP, the following Catalytic Projects were identified:

- *Cato Ridge*
- *Port and Back of Port*

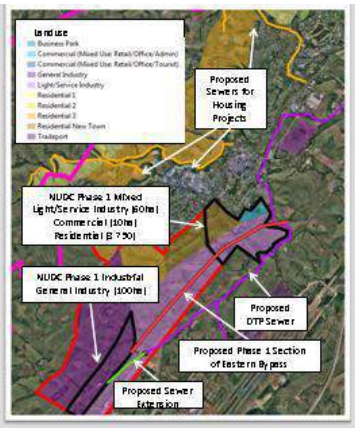
- *Tongaat/ DubeTradePort and Surrounds*
- *Cornubia*

Of the priority projects listed above, attention initially focused on two catalytic projects where there were projects identified and there was certainty with respect to development, namely Cornubia and Tongaat/Dube Trade Port and surrounds. Both these priority areas incorporate housing opportunities, a mix of commercial and industrial land uses addressing economic requirements, help to maximize infrastructure efficiencies and address the developmental aspect associated with development in close proximity to the R102 (a mixed use and public transport corridor close to existing and future residential areas and an important road link to neighbouring municipal areas). Work to date has focused on unlocking these developments and understanding the infrastructure costs, timing and financing options giving greater certainty on the budgetary requirements. As further detailed studies have progressed, so too have the detailed infrastructure investigations, leading to further refinements to the anticipated cost and phasing of development as illustrated below. <u>These have been factored into each budget cycle.</u>



Unlocking Development
Dube Trade Port
Phase 1 Bulk Infrastructure

Infrastructure	Amount (Rm)
Road infrastructure to support the NUDC	300 (total R356m for Eastern Bypass)
Extension to DTP Trunk Sewer	5
Trunk Sewers to support Tongaat Housing Projects	5
Water	0
Electricity	0



The eThekwini Municipality has since updated its Prioritisation Decision Matrix by adding more filters in order to get better alignment across sector strategies, budgets and National (SIP2) and Provincial initiatives. Refinements to the catalytic project identification process are outlined in the City's 15/16 Built Environment Performance Plan to which reference is made below.

8.7.5 Spatial Analysis of the Budget

<u>Step1: Spatial Analysis of the Budget and Identification of Strategic Outcomes:</u> In addition to the work done above, the eThekwini Municipality has also embarked on a spatial analysis of the budget spend and the identification of mechanisms for achieving greater internal alignment. This process is often referred to as the "Blue Skies Process". Translating the Blue Skies process into projects was an attempt to use spatial budgeting to identify key investment locations in order to drive spatial transformation, address social, economic and environmental imperatives, and address inefficiencies

in service provision. Taking its cue from the Blue Skies Process the following strategic outcomes or criteria were identified:

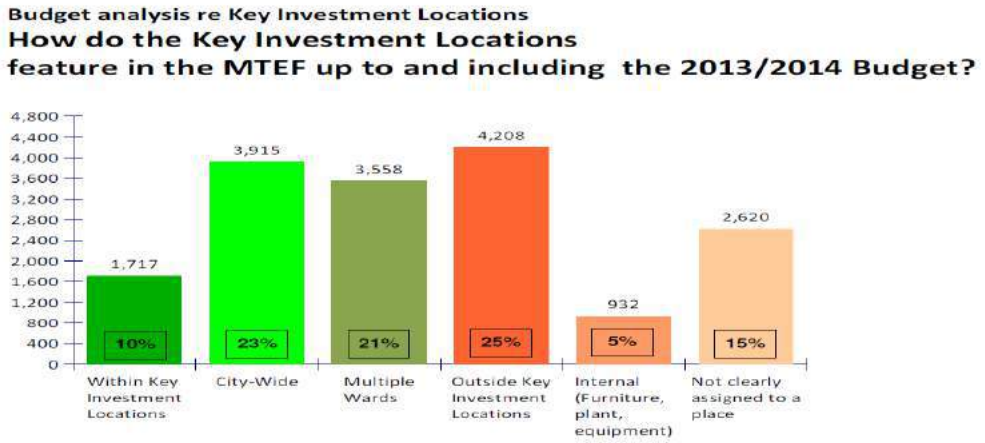
- Intensify, Densify and Regenerate the Existing Urban Centres and Key Corridors
- A strategic approach around the development of greenfields projects
- Mitigate Apartheid Spatial Planning and Mitigate the Urban-Rural Divide
- Promote Social Inclusion
- Connect the City
- Retain Existing Jobs and Grow New Ones
- Grow the Rates Base

These strategic outcomes were then turned into overarching criteria and used to identify Key Urban and Rural Investment Locations in alignment with the SDF key investment areas. Projects were then identified inside the Key Investment Locations. The key urban and rural investment areas that measured up closely to these criteria are illustrated below. In addition, there are projects and programs that affect or support Multiple Investment Locations such as the IRPTN, D'MOSS, freight routes and agricultural areas.



Figure102: Urban and Rural Investment Locations

The projects listed already enjoy attention and were sourced from a number of municipal plans (SDF, SDP, Local Area Plans, sector plans etc) and then assessed in terms of the 2011/12 and 2012/13, MTEF up to 2013/2014. This assessment demonstrated a mismatch between the spending on key spatial locations and public sector investment in other areas of the city – a total of R2.94 billion being spent outside of the key investment locations. It was further noted that project life-cycles tend to be much longer than MTEF or even IDP periods, and it was not clear if the current mechanisms are effective for keeping long-term projects in view and in funds.



The process then explored possibilities for redirecting the budget to key investment locations and city wide projects through project savings in non-key investment locations and / or reviewing, coordinating and consolidating projects and their budgets to achieve maximum impact. This process further highlighted the need to examine the projects and budgets outside of the key investment locations with a view to identifying cost savings and/ or, if slower capital expenditure is possible etc.

Step 2: Spatial Analysis: Monitoring and Evaluation: Mapping of the Medium Term Expenditure Framework (MTEF) Capital Budget and Past Expenditure

Building on the previous work undertaken, in 2013/14 the eThekwini Municipality embarked on an exercise to spatially capture and represent the capital budget in order to assist with the SDF review and assist the municipality advance on its work in trying to spatially align investment and achieve the desired urban form.

The ultimate objective of this project was to assist with the monitoring and evaluation of the Municipality's long term spatial development goals and with reviews and refinements of both the SDF and the MTEF Capital budget. The assessment has also taken account of the Built Environment Performance Plan and the principle of Integrated City Development and Expenditure as required by National Government. A key aspect of the analysis was an assessment of whether the MTEF Capital budget is promoting the SDF objectives and other spatial targeting instruments such as, the National Treasury's Integration Zones, or inhibiting them.

At the time, the project captured the actual expenditure for 2013/14 and the Budgeted Expenditure for 2014/15, 15/16 and 16/17 in a GIS database (ie current and future budgets at the time it was captured). The project focused on elements within the MTEF that grow and drive development with less emphasis on elements that either follow development, or are standard Municipal maintenance elements. Accordingly filters were applied when determining projects to be captured. City building projects were mapped while maintenance projects were not, housing projects under R1 million over 3 years were not mapped, engineering projects under R3 million over 3 years were not mapped and

social facilities under R2million over 3 years was used as a cut off. Approximately 50% of the budget was ultimately mapped because projects fell below the filters, they were not spatially referenced or captured as block sums, and they were maintenance projects.

Notwithstanding the limitations of the budget captured, it was still possible to analyse the trend in capital expenditure and evaluate the general alignment/non-alignment with the SDF and spatial targeting instruments. In terms of the SDF 14/15 prepared by the eThekwini Municipality, the following conclusions are of relevance to the analysis that was undertaken in this project:

- Densification and Residential Elements

 The SDF reflects future densification along the primary transport corridors with infill areas located in the central region. It is within these areas that the future growth is envisioned to happen. Future residential use is generally located within the UDL. The IRPTN is a major component as this is the structuring element that forms the densification corridors.
- Direction of Growth

 This is primarily related to the corridors, as the direction of growth by in large extends from the CBD northwards to Dube TradePort and also from the CBD westwards out to Shongweni, Hammarsdale & Cato Ridge. Growth is also anticipated to extend southwards to the Port, Umlazi and Illovo South. There is also major emphasis on the CBD as the primary investment node.
- Major Economic Activities

 Activities related to economic growth (shown as future industry, future business park, future mixed use on the SDF etc.) are primarily located:
 - Durban CBD
 - Pinetown CBD
 - Around Dube TradePort
 - Around Cornubia
 - Around the South Durban Basin
 - South of Durban
 - West of Durban around Cato Ridge and Hammarsdale / Mpumalanga

The assessment was based on the following:

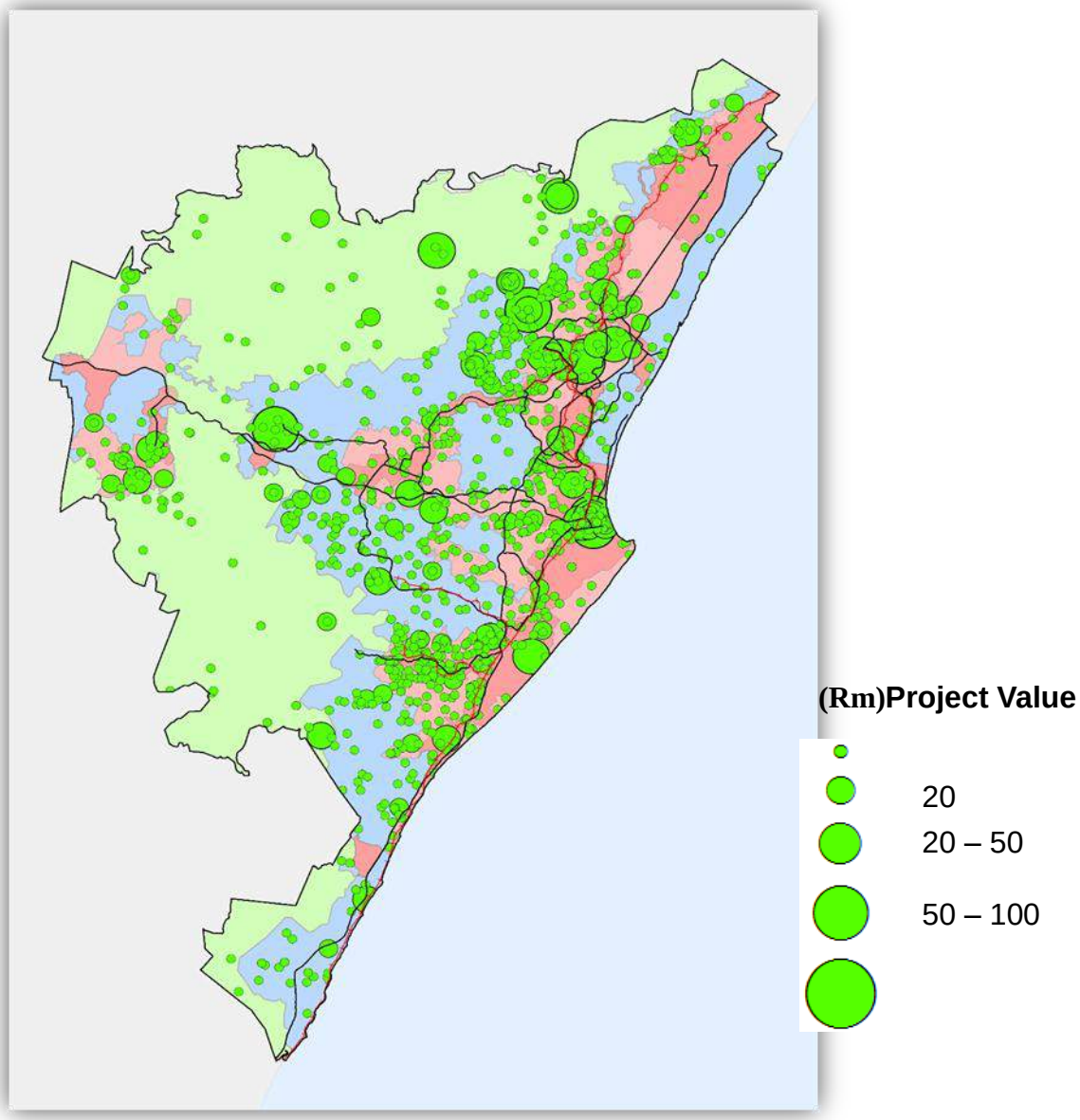
- Does the capital expenditure and budget address the key SDF principles
- Does the capital expenditure and budget address the key areas of growth
- Does the capital expenditure and budget accord with the Integration Zones identified in the Built Environment Performance Plan (BEPP)

In conclusion, the analysis of the SDF principles indicated broad alignment with budgeted expenditure. The catalyst projects listed in the SDF appeared to be supported by budgeted expenditure. The expenditure also appeared to tie quite strongly with the Integration zones. The only real anomaly applied to historically initiated and in the pipeline housing projects influenced largely by the national subsidy regime and availability of greenfields land. The recent nationally driven process of identifying Human Settlement Mega Projects located within the Urban Development Line /

Integration Zones (elaborated on below) has gone a long way to remedy this disjuncture and has ensured better located and integrated housing opportunities.

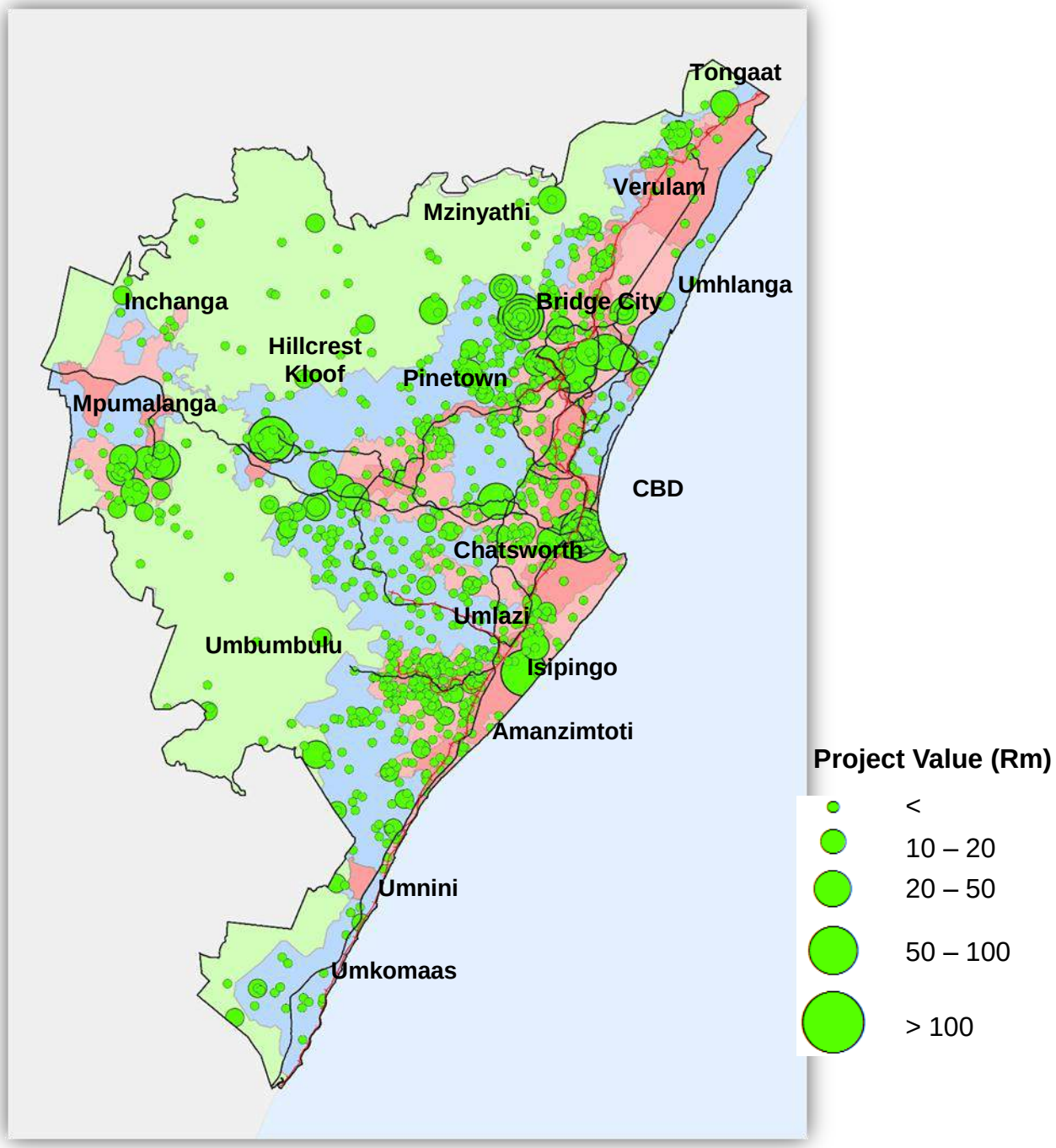
On the whole, the project provided useful information for the SDF and Budget Review and could be extended and improved. Accordingly, it was recommended that the information be updated on an annual basis (after the budget has been approved) and that future projects should endeavour to also capture block sums, maintenance projects, the spatial impact of projects, the phasing of projects, and provincial, national and major private sector projects to provide a more rigorous analysis. In addition, data quality could be improved in future iterations of the budget by ensuring that names of projects or areas are standardised, the nature of projects are captured and projects are assigned a unique ID in an effort to capture and cross reference data more easily. It was also strongly recommended that the city introduce a 10-20 year budget cycle to ensure longer term commitment to the city's investment priorities. It was recommended that these will need to be addressed in future budget cycles and could be addressed in the City's Built Environment Performance Plan Review.

A further spatial analysis of the budget 2016/17-2018/19 reveals good alignment with the SDF and BEPP integration zones as indicated below. Details of the actual project and budget can be found in the Service Delivery Budget Implementation Plan submitted with the IDP documents. These maps provide a general indication of the spatial spending of the municipality.



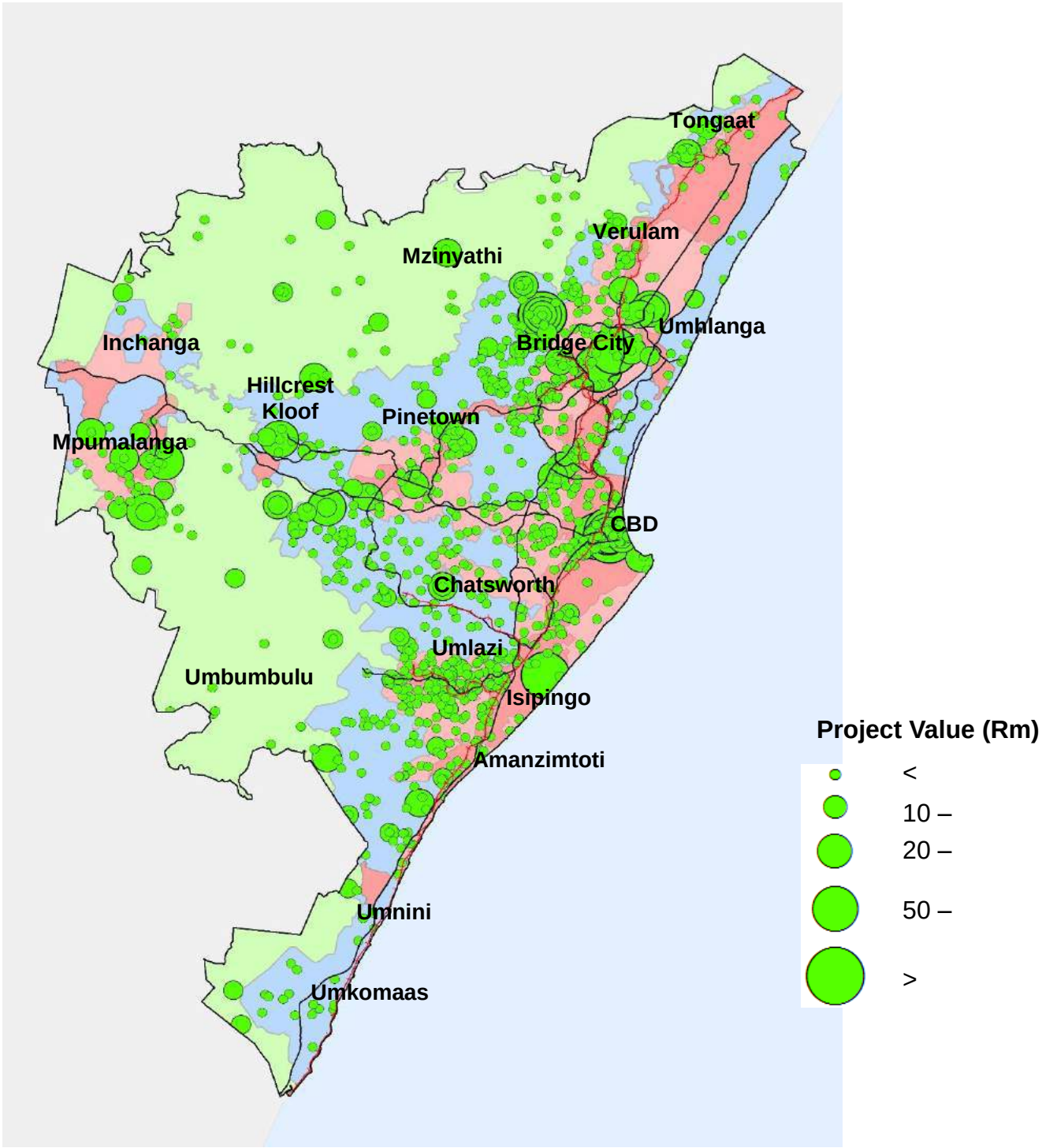
Source: Mapping of MTEF Capital Budget Project 13/14 – 16/17

Figure 103: Revised Budget 2016/17 All Projects Captured



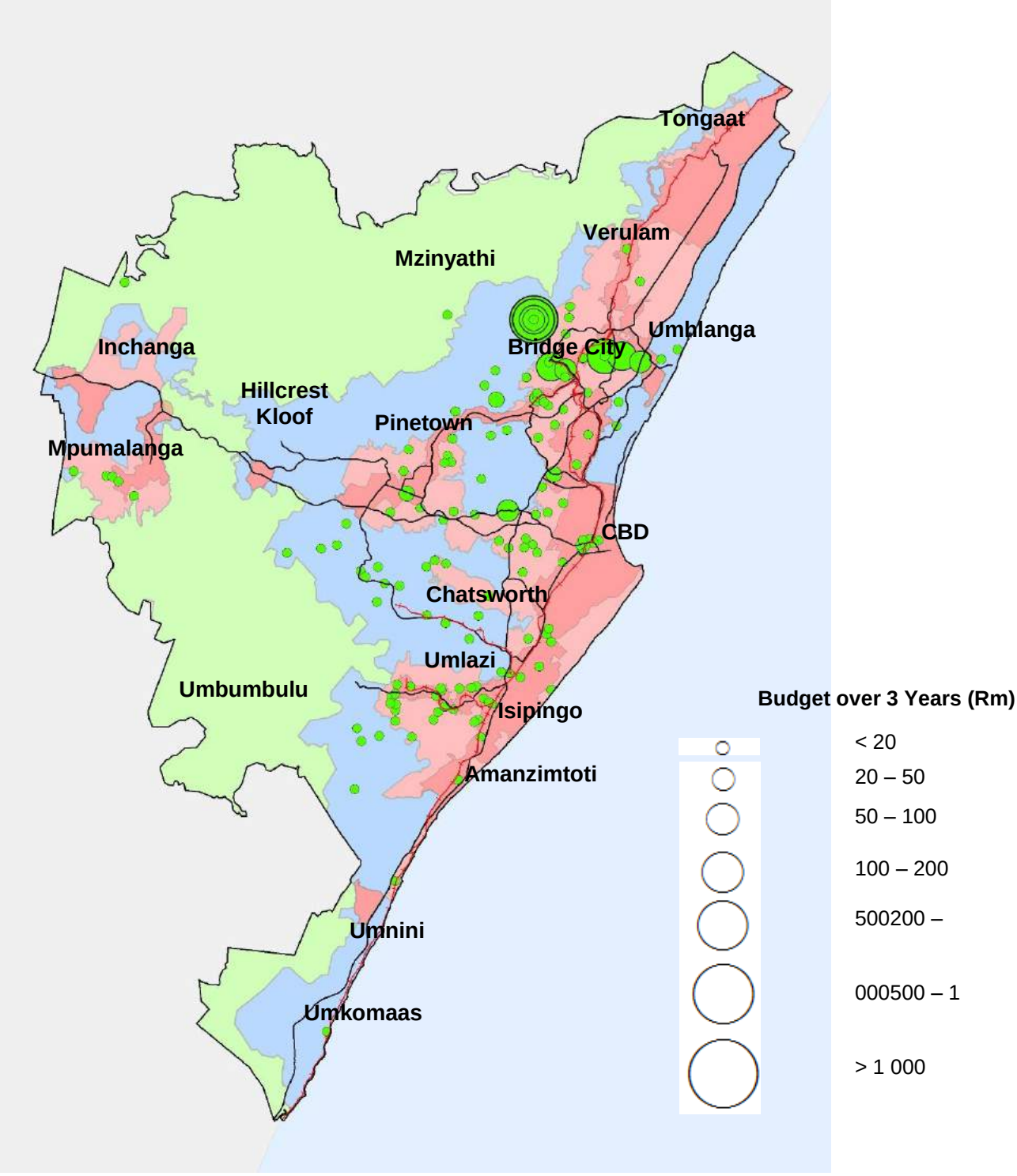
Source: Mapping of MTEF Capital Budget Project 13/14 – 16/17

Figure 104: Approved Budget 2017/2018 All Projects



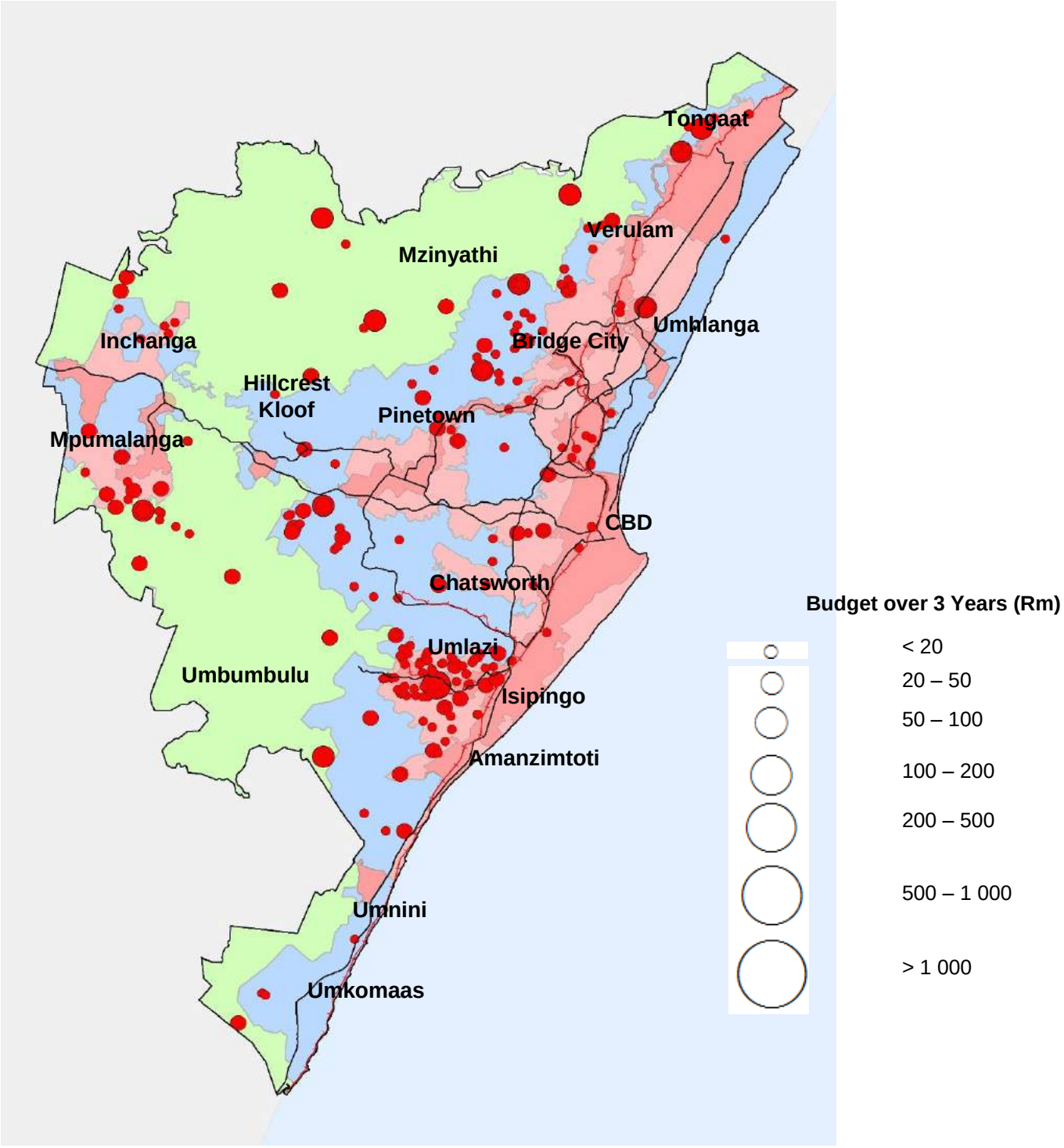
Source: Mapping of MTEF Capital Budget Project 13/14 – 16/17

Figure 105: Proposed Budget 2018/19 All Projects



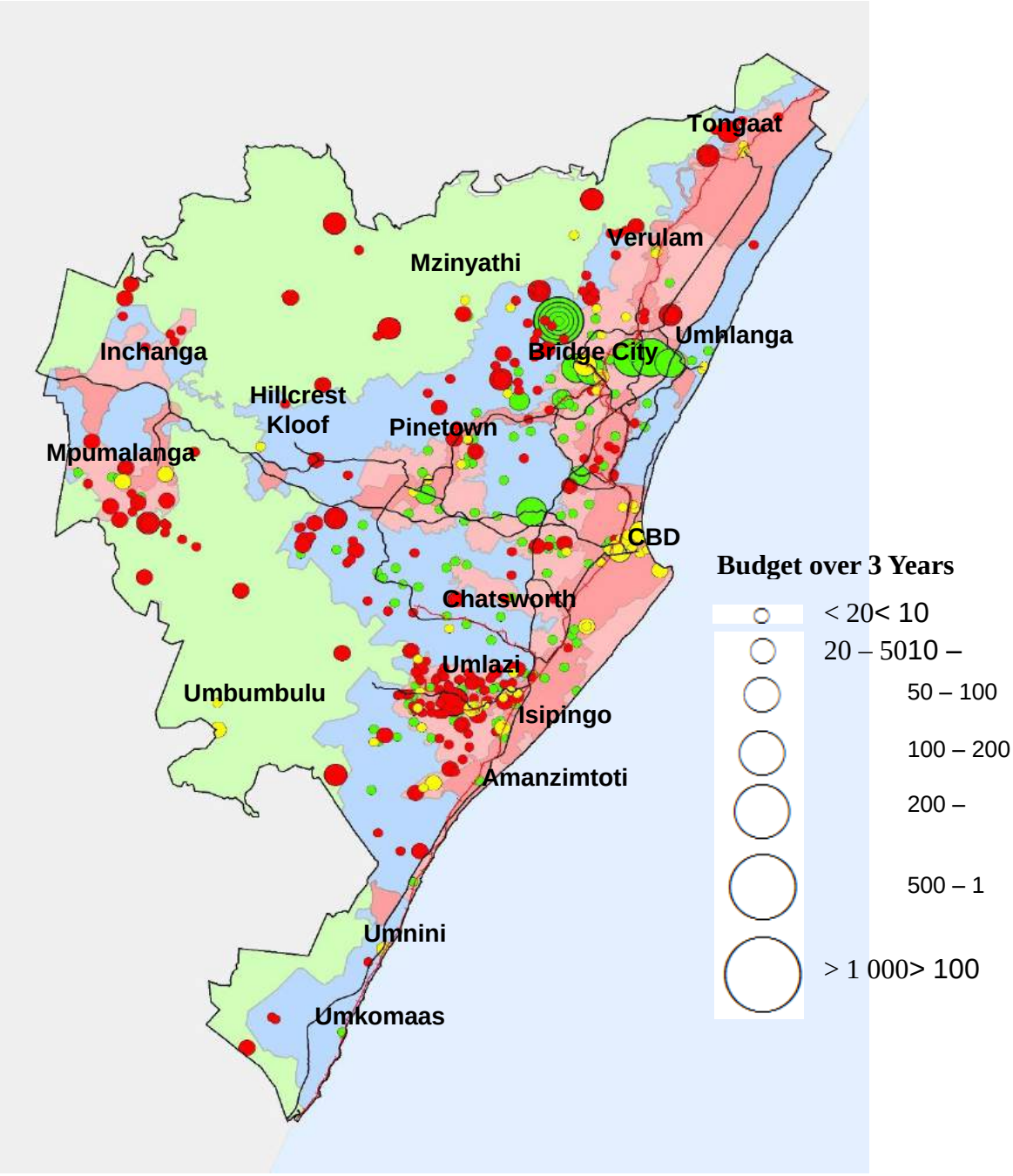
Source: Mapping of MTEF Capital Budget Project 13/14 – 16/17

Figure 106: Sum of 2016/17, 2017/18 & 2018/19 Theme: Transport



Source: Mapping of MTEF Capital Budget Project 13/14 – 16/17

Figure 107: Sum of 2016/17, 2017/18 & 2018/19 Theme: Housing



Source: Mapping of MTEF Capital Budget Project 13/14 – 16/17

Figure 108: Sum of 2016/17, 2017/18 & 2018/19 Theme: Transport, Housing & Economic

Sum of 2016/17, 2017/18 & 2018/19 ALL PROJECTS

Integration Zone	Budgeted Amount per Theme (Rm from 2016/17 to 2018/19)							
	Transport	Housing	Economic	Roads	Water	Sanitation	Electricity	Social
Prime Corridor	361	258	799	20	1 081	1 651	674	1 774
Dense Urban	580	1 335	69	25	702	87	269	111
Medium & Low-Density Suburban	2 396	1 321	124	253	551	281	161	183
Non-Urban	0	681	42	117	94	18	0	41
Spatially Unassigned	3	39	9	103	0	4	64	10
Total	3 340	3 634	1 043	518	2 429	2 042	1 168	2 119

8.8 Integrated and Spatially Targeted Implementation and Budgeting

8.8.1 Built Environment Performance Plans

Built Environment Performance Plans (BEPPs) were first introduced in the 2011/12 financial year as an eligibility requirement for the Urban Settlements Development Grant (USDG) and then later as an eligibility requirement for the Integrated City Development Grant (ICDG) in the 2014/15 financial year.

The preparation of Built Environment Performance Plans is premised on the notion that ”a fundamental spatial transformation is required to enable South African cities to contribute effectively to economic and social development objectives and that large urban municipalities have a critical role to play in supporting more inclusive economic growth in South Africa. Metropolitan municipalities, in particular, are seen as having the responsibility to guide spatial development through urban planning instruments, infrastructure investments and service delivery programmes that shape the built environment of South African cities “(BEPP Guidenote for 15/16).

Section 14 of the Division of Revenue Act (DoRA) (2014) requires that, by 30 May 2015, the Municipality submit to the National Treasury, a built environment performance plan that includes all projects partially or fully funded by grants from a national or provincial department and must cover the Integrated City Development Grant, Urban Settlements Development Grant, Public Transport Infrastructure Grant, Neighbourhood Development Partnership Grant, Integrated Electrification Programme Grant, and the Human Settlements Development Grant. The BEPP has to be approved by the Municipal Council.

The 2014 DoRA Framework on the Integrated City Development Grant provides that the grant will only be released to a municipality that has submitted (i) a BEPP which includes the Council’s approval of integration zones, urban networks and the ICDG with a signed Cities Support Programme (CSP) participation agreement. All participating municipalities are required through the DoRA to

submit the BEPP as part of the batch of documents when the IDP, Budget and SDF are submitted to Council at the end of the municipal financial year.

In 2014, participating metropolitan municipalities outlined plans for restructuring their built environments, based on the concepts of integrated, transit oriented development as articulated in the National Treasury's Urban Networks Strategy. The plans identified key elements of their urban networks, focusing on specific integration zones that would be the focus of future investment programmes across sectors, and within which specific, catalytic intervention projects were identified. These plans responded to agreed indicators and targets so that measurable progress could be achieved in building more productive, liveable, inclusive and sustainable cities.

The principles in the BEPP are no different to those in our own municipal plans (LTDF, IDP, SDF etc.) - the key value that the BEPP adds is integrated implementation and the ability to drive capital budgets spatially rather than sectorally. The BEPP complements existing municipal plans; it does not intend to replace any such plans. The BEPP process and approach being prescribed by national treasury is based on the integration of the plans of **key** sectors (economic, transport and housing), and the co-ordination of budgets (municipal, provincial and national) and the co-ordinated timing of implementation that should result in triggering long-term spatial transformation and inclusivity, facilitating economic growth and improved service delivery. THE BEPP is updated annually with a long term planning horizon to 2030, with intermediate milestones in 2020 and 2025. The performance of the built environment and its transformation outcomes will be assessed against predetermined indicators.

BEPP is a therefore a critical instrument for identifying catalytic projects and investment priorities and an important tool to shift the investment focus to spatial targeting and integration. The BEPP therefore bridges the gap between the IDP & Budget giving effect to the strategic and spatial intent of the SDF and fulfilling the requirements of the Capital Investment Framework as required in terms of the MSA (32 of 2000).

While the focus of the 2014 BEPP processes was on planning for spatial transformation, the 2015 BEPP will now focus on accelerating the implementation of catalytic interventions. To this end the 2015/16 – 2017/18 BEPP seeks to refine, enhance and consolidate the content of the baseline BEPP established in 2014/15.

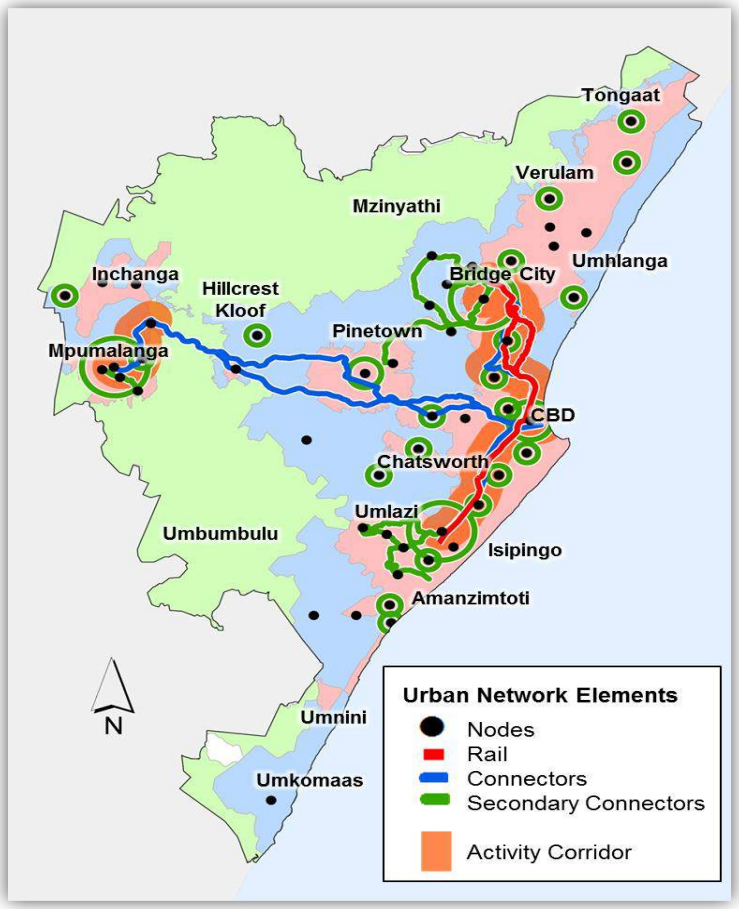
8.8.2 Urban Networks and Integrations Zones

National Treasury's spatial targeting approach uses the concept of an Integration Zone as the foundation for making medium and long-term capital commitments for the purpose of creating efficient, sustainable and inclusive development in the country's metropolitan municipalities. The focus of the National Treasury's spatial targeting initiative is the identification of a CBD, major

Townships, other Townships, and the connections between these three types of spaces or elements, and an Integration Zone. This system is termed the Urban Network.

Urban Networks and Integration Zones were the key focus of the 2014/15 BEPP. In particular the focus for 2014/15 BEPP was on the identification refinement, prioritisation and phasing of the Hubs /Node and Integration Zone(s) in the municipality, including its geographic boundaries as informed by the Urban Networks Strategy (with its associated spatial, economic and developmental objectives).

2015 offers the opportunity to refine and consolidate the planning of the urban network and Integration Zones done in the 2014/15 BEPP.



The eThekwini' Municipality's response to the Urban Network has been to incorporate and develop the intellectual and institutional capital which was created in the preceding Blue Skies initiative and to use the opportunity to develop a corporate spatial prioritisation and 20-year implementation program which is rooted in the SDF and the other documents in the eThekwini Municipality's Package of Plans.

The model used by the eThekwini Municipality is to phase development within the urban development line by defining a Dense Urban Zone, Medium & Low-Density Suburbs, and a Non-Urban Zone. These major elements are connected by a Metropolitan Movement Network, comprising the IRPTN, Feeder and Complementary Public Transport (PT) Routes.

Dense Urban Zone

The Dense Urban Zone is made up of major economic uses and adjoining residential uses.

The city is structured around urban centres and economic zones with high concentrations of infrastructure, jobs, and economic activities, and which are well served with public transport. Neighbouring uses are residential areas, including some townships, informal settlements, and former group area suburbs and which are already dense or have good potential to become dense.

The major economic uses comprise significant urban centres, the external and internal connections (particularly the IRPTN), and the intense uses along these connections. The Dense Urban Zone contains both existing high-intensity uses, as well as numerous opportunities for intense brownfields or greenfields urban development. 90% of jobs (i.e. almost all jobs) are located here. 11% of the population (i.e. one in every nine persons) lives here, 429 000 people in total. These areas occupy about 10% of the municipal extents. The challenge is to maintain the infrastructure and buildings, and because they are so well located, to find opportunities to expand, intensify or redevelop properties for economic uses and high density residential.

The adjoining residential uses are well connected by public transport and other movement systems, have good access to social facilities. Typically they form a belt of approximately 2km wide around IRPTN and other major movement routes. Existing densities are typically in the low and medium range. A big chunk of the population lives here – 1.4 million people, about 37% of the population (i.e. almost four out of every ten persons). These well-located dormitory areas take up only 15% of the municipal extents (i.e. one-seventh), and so they have the highest relative population densities (though still too low for efficient and self-sustaining urban environments). The intention is to maximise densities, which will require vigorous intervention, to upgrade informal settlements into high-density schemes, and to promote higher levels of LED to support the new densities.

A key program for the Dense Urban Zone will be to identify and stimulate take-up of development opportunities, particularly in Cornubia and around the Aerotropolis, and to accelerate the construction and commissioning of the IRPTN. Infrastructure investment, particularly in sewer works and reticulation, as well as the improvement of regional routes northwards will also be required

Medium- & Low-Density Suburbs

In other parts of the city there are low-density dormitory suburbs that have infrastructure but are poorly connected to urban centres and jobs. These are former townships and informal settlements which came about through apartheid planning, as well as low density former white suburbs which rely on private motor vehicles.

The Medium- & Low-Density Suburbs form another belt beyond the Dense Urban Zone. About 1.6 million people (about 43% of the population) live here. They live on a third of the municipal extent, at low densities in absolute terms (usually less than 10 dwellings per hectare). The big challenge here is to improve the connectivity of these dormitory suburbs to where the jobs are, by reducing travelling times, lowering transport costs and improving the roads network. The former townships and informal settlements in these areas tend also not to be as well served with social facilities, so a challenge is to improve the quality and effectiveness of existing facilities and in some cases to build new ones. The development intentions are to rectify backlogs in social facilities, to promote LED, to increase densities to a degree and in accordance with approved plans, to quickly provide informal settlements with universal access to basic services alongside the slower upgrading program, and to significantly improve the connectivity of these suburbs to the Dense Urban Zone

Non-Urban Zone

Beyond the Suburban Zone there are Non-Urban areas, which are low density traditional areas, as well as densifying traditional areas, protected areas and commercial farming and which in the past used to be isolated from the other parts of the city. Non-Urban areas typically have none or very basic services only, and poor or expensive connectivity to the city is a constant feature.

The Non-Urban Zone supports traditional lifestyles, agriculture, tourism and nature conservation. Non-urban areas are home to 8% of the population (one in every twelve persons) 313 000 people in total, and about 68% (more than half) of the municipal extent. The key challenges are to improve social facilities and basic infrastructure (water, electricity, sanitation), connectivity (roads and internet), and to encourage sustainable livelihoods and access to agri-processing and distribution.

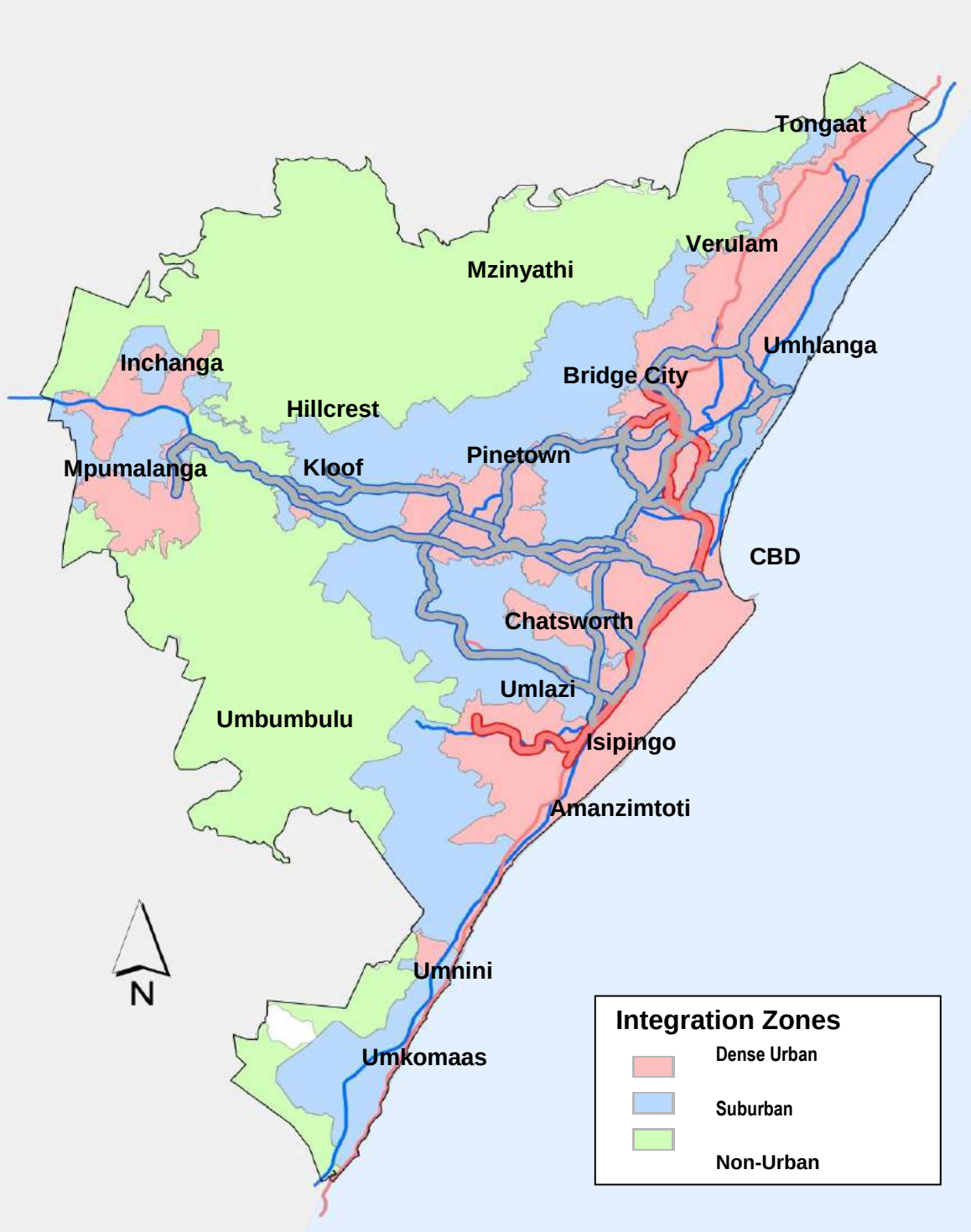


Figure 109: Composite – IRPTN and Integration Zones

Investment Intentions

It is intended to steer capital budgets to delivering on the diverse development intentions for each of the three Zones. Already there is an emerging spatial and temporal prioritisation within this framework. The development initiatives in the North Urban Development Corridor (including the Aerotropolis), the Port, and the current phase of the IRPTN have been accepted and confirmed as initial priorities within the Dense Urban Zone.

Summary of Interventions

INTERVENTION	*DENSE URBAN*	*MEDIUM- & LOW-DENSITY SUBURBS*	*NON-URBAN AREA*
INVESTMENT STRATEGY	Deliberate investments, intensive detailed planning, mobilisation of private sector investment, deliberate rezoning for high densities, deliberate crowd in of budgets/ infrastructure upgrades and expansion etc.	Stabilisation of settlements with services to ensure universal access on affordable standards, maintenance of infrastructure and services, provision of social facilities to the norms and standards agreed etc.	Provision of infrastructure and services, improved linkages, and agri processing, and monitoring of growth
PROPERTY DEVELOPMENT INTENTIONS	High Floor Area Ratios Extensively Developed No Vacant or Underdeveloped Properties Property Improvements Property Extensions Redevelopments	Moderate Floor Area Ratios Improvements *Formalisation* Regularisation	*Formalisation of Towns* Regularisation
INTENDED CONTRIBUTIONS TO ECONOMIC HEALTH	Improved City GDP Improved Rates Revenues High Sales of Water and Electricity Job Retention Job Creations	Improved Rates Revenues High Sales of Water and Electricity	High Sales of Water and Electricity

In essence, the Integration Zone concept is about prioritised and co-ordinated implementation in each of the zones. If this can be achieved, the impact of capital and operating spend will be greatly enhanced with significant benefits emerging for residents and for the economy as well as for the municipality.

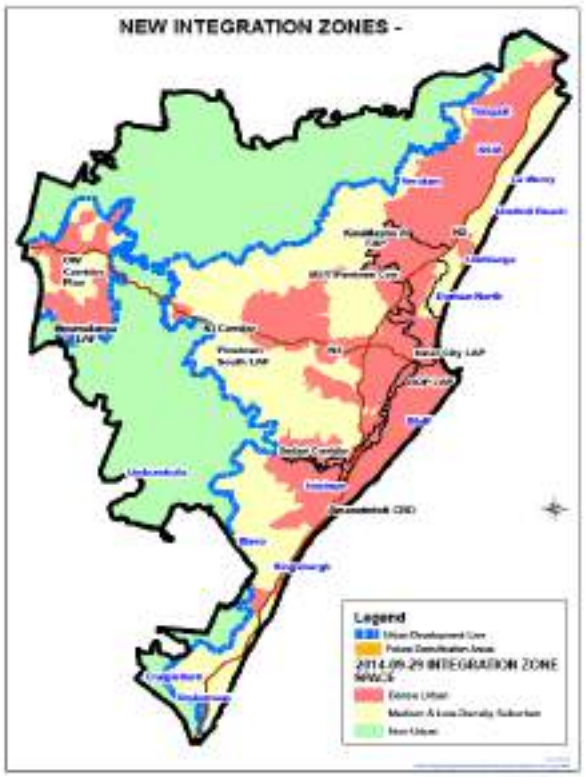


Figure 110: UDL and Integration Zones

8.8.3 Spatial Plans, Urban Development Line and Integrations Zones

There is already significant alignment between the SDF's Urban Development Line (long term outer boundary for urban development) and the long term Integration Zone (Medium to low density Suburban Residential Integration Zones). In addition, the SDF's spatial focus on densifying and intensifying development along the mixed use priority public transport routes aligns fully with the proposed Dense Urban Integration Zone. The Dense Urban Integration Zone represents the Phase 1 priority area for mixed use, high dense and transport oriented

investment within the Urban Development Line of the SDF. Council approved spatial plans (details of which are outlined in Annexure 6) are well aligned with the Dense Urban Integration Zones and the Urban Network Strategy which requires a focus on Integrating townships into the movement & economic system, revitalising township nodes & stimulating economic development and supporting transit-oriented development within key nodes and public transport corridors. Examples of the North and South Public Transport Corridor Studies are illustrated below. Implementation projects within these corridors are currently in progress. Rezoning approvals also show alignment between denser urban integration zones and private sector initiatives. A recent analysis of the rezoning applications approved between 2011 and 2015 (Figures 68 & 69)) show that majority of applications are located within the Dense Urban Integration Zone and that out of a total of 227 rezoning applications, 22% support residential intensification, 36.5% represent rezoning from residential use to other (eg commercial, worship etc) and 17, 2% are for mixed use (ie some residential retained as part of the proposal), suggesting that some of the residential component is being lost in places where it is critical to be retained and mixed uses are growing away from the preferred mixed use corridors. The analysis of the special consent approvals show that out of 341 Special Consent applications, 18% contribute to residential intensification,13% to partial conversion (home business) and 9,4% from residential to another single non-residential use. While smaller in number, the special consent applications from residential to other uses are concentrated around the public transport corridors. Careful monitoring needs to be undertaken to ensure that the balance between residential and non-residential uses is maintained to ensure the viability of the public transport system along these corridors.

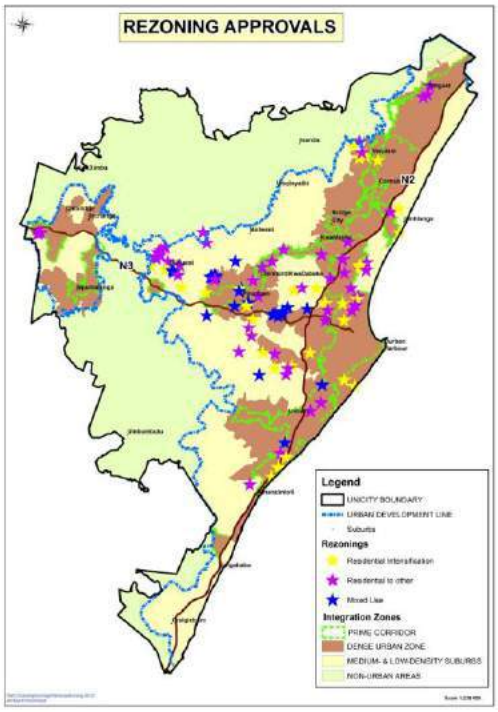


Figure 111 Rezoning Approvals

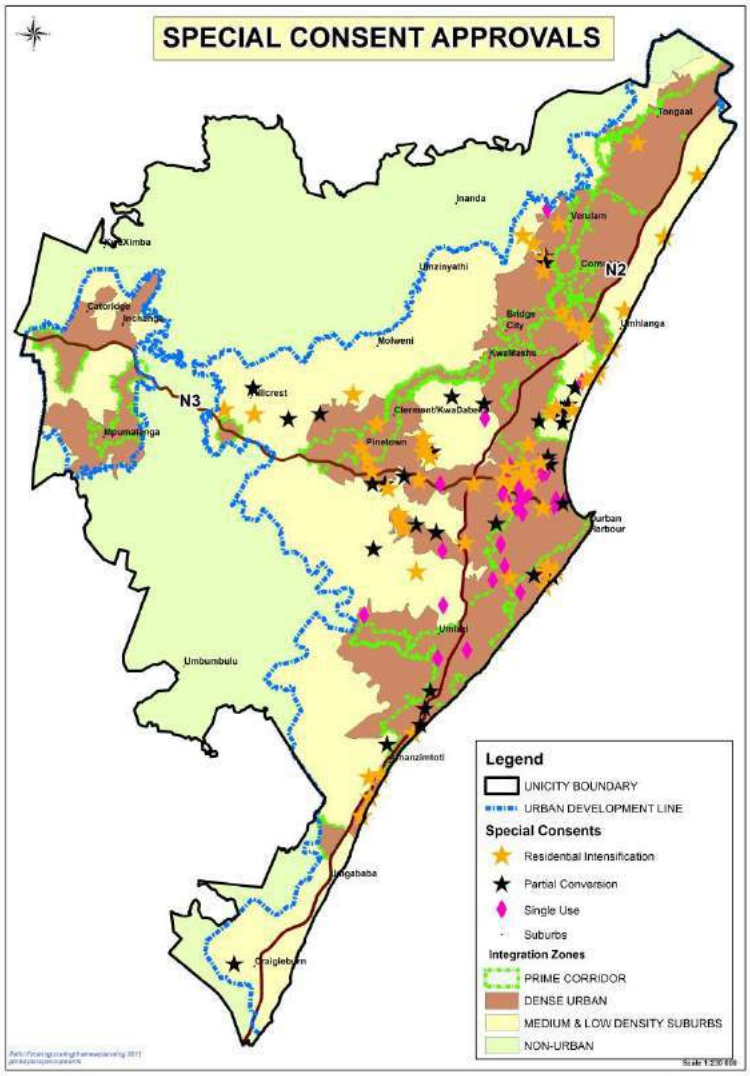
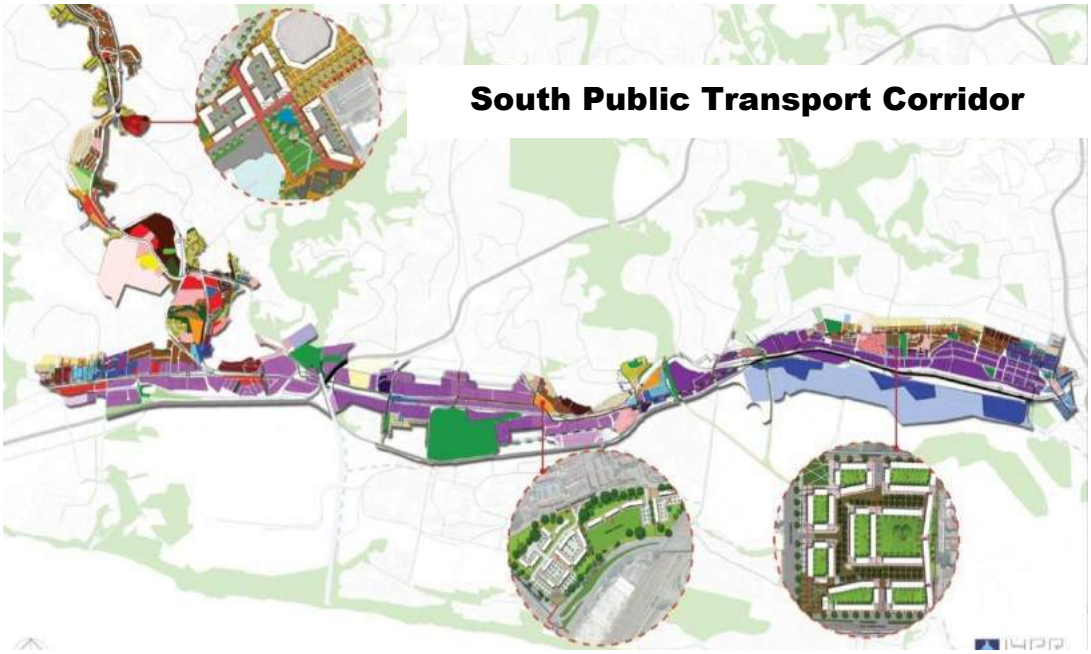


Figure 112: Special Consent Approvals

Example of Transit Oriented Development within Transport Nodes and Corridors

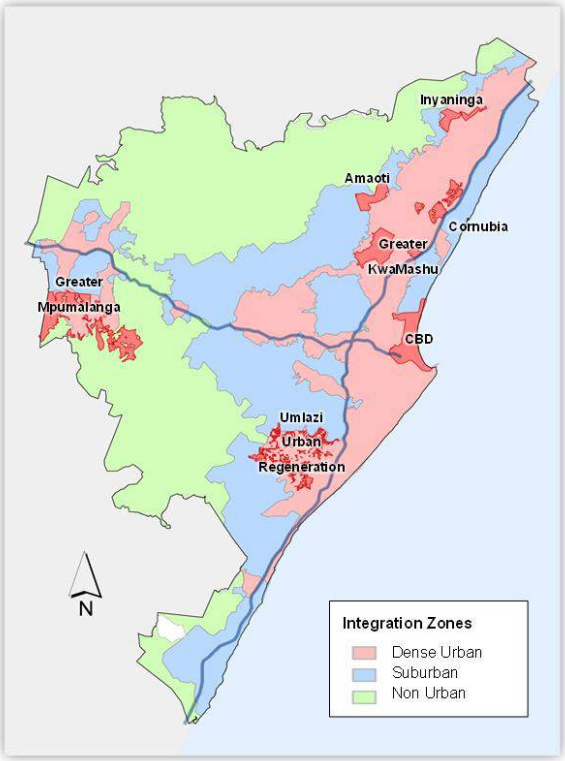




8.8.4 Spatial Targeting Instruments

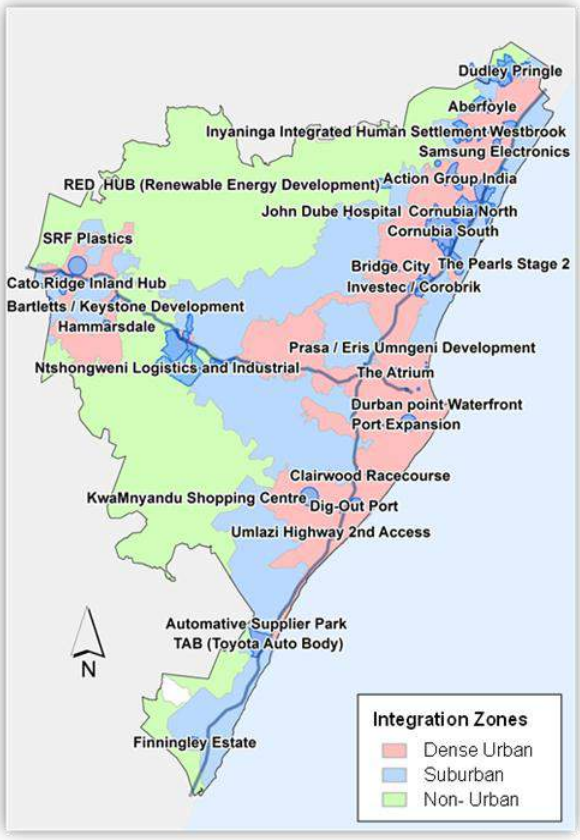
8.5.4.1 Mega / Catalytic Projects

Several mega-projects are in motion, and other candidates have been identified. Their aim is to bring about high-impact and large-scale urban transformation. "Catalytic projects can range from mega scale inclusionary neighbourhoods to seemingly small but high impact interventions. The underlying principle of all of these is that they are all spatially targeted interventions whose main objective is to intervene to deliberately restructure settlement patterns. This implies that catalytic projects do not necessarily occur in the same place if the supply is lacking, but are located in places of best opportunity for access to work, live, play.These mega projects are all well located and show the direction in which Human Settlement projects are moving. Typologies and funding models become critical along with good partnerships with private sector (eThekwini Draft BEPP report 15/16)



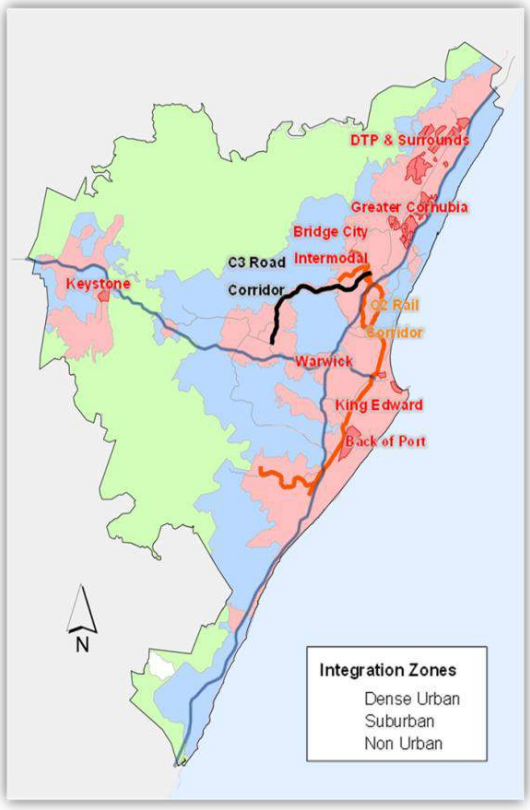
8.8.4.2 Economic Investment and Dashboard

Although predominantly private sector development, most of these initiatives are located within the priority economic investment nodes, within close proximity to the N2 and N3 mobility corridors and along mixed use corridors. They are therefore supportive of the need to grow the economy in more accessible locations.



8.8.4.3 Economic, Housing Catalytic Projects & Public Transport (in progress / to be implemented shortly)

Combined the projects demonstrate spatial proximity between housing and economic projects and public transport trunk routes. They also display a good mix of development types which supports revenue-absorbing and revenue-generating elements in the same project and therefore supports greater financial viability.

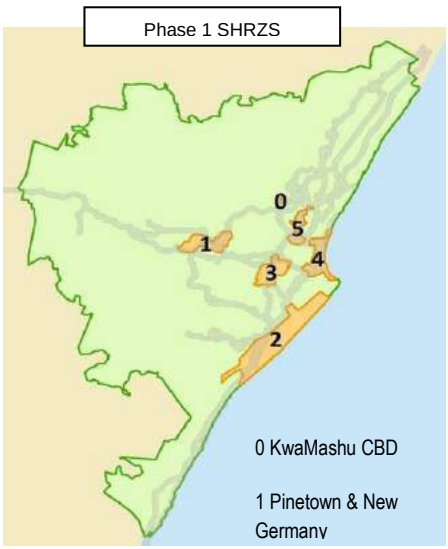


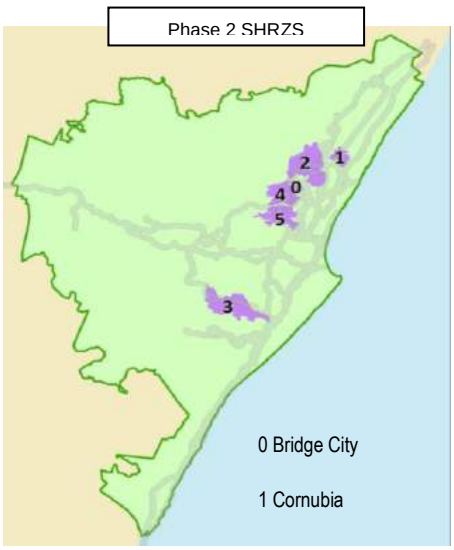
The eThekwini Integration Zones incorporate the public transport routes identified in the Integrated Rapid Public Transport Network and the intention is to intensify development around these corridors. This will assist in improving the ridership of public transport as well as creating vibrant spaces with a mix of higher density public and private housing, economic investment, social facilities and a quality public realm. The servicing of informal settlements is also a high priority in the BEPP. Emphasis is also given to the alignment with national initiatives such as the Strategic Infrastructure Projects (SIP2 and SIP7) for improved economic development.

The following spatial instruments are currently under review

a) SHRZ - Social Housing Restructuring Zone

The eThekwini Municipality has numerous SHRZs as shown below. The SHRZs were designated in two Phases several years apart. All fall within Urban Development Line and within the Integration Zone (both Dense Urban and Suburban Zones), with the exception of Chatsworth which does not fall within the Dense Urban Integration Zone, but does fall within the Long term Integration Zone / Urban Development Line.





A review of the SHRZ is required to extend it to encompass a greater space within the Dense Urban Zone.

b) UDZ - Urban Development Zone

The greater part of the Durban CBD has been designated as a UDZ. Because the Durban CBD is a key priority investment area and wholly contained within the Phase 1 Dense Urban Zone within the Integration Zone, no adjustment to the spatial definition of the UDZ is presently suggested.

c) SEZ - Special Economic Zone

The eThekwini Municipality does not presently have an SEZ, although the Aerotropolis has been identified locally and nationally as a candidate. If it were to be designated as an SEZ, the SEZ would fall wholly within the Dense Urban Zone.

d) IDZ - Industrial Development Zone

The eThekwini Municipality does not have an IDZ. It appears unlikely that government will support new IDZs, and instead is likely to consider converting existing IDZs to SEZs. Consequently, no IDZ is proposed for the eThekwini Municipality.

e) Urban Development Line (UDL)

The UDL is not a servicing line but a spatial tool for achieving compact and efficient urban growth over time. It prioritises areas with existing services and high accessibility (ie the integration zone) but also identifies the outer limits of urban growth as subsequent phases of development. The major review of the SDF will introduce spatial instruments that manage urban, peri-urban and rural development based on typology, density, access etc. in an effort to restructure the urban form and prevent outward sprawl and encroachment into agricultural and rural areas.

Sector plans will determine how these areas are to be serviced.

f) Alignment of the Spatial Development Frameworks and the Integration Zone

As indicated above a significant amount of detailed planning has already been undertaken within the Dense Urban Integration Zones / Transit Oriented Development (TOD) Corridors (Annexure 6). The SDF process needs to monitor and review if the desired outcomes are being achieved (ie performance targets are being met) and shift the planning focus to implementing the programmes and projects identified in the council approved plans. Some of the exercises identified thus far include: identifying land redevelopment opportunities in the Dense Urban Integration Zone/Transit Oriented Development Nodes and Corridors, undertaking a detailed Land Use Survey to assist with the monitoring and review of development targets,align zoning and land use controls to facilitate the desired development intensity and mix and, where necessary, introduce a package of spatially aligned development incentives.

8.8.5 Catalytic Projects

One of the main expectations of the 2015/16 – 2017/18 BEPP is the identification, packaging and implementation of catalytic urban development projects within the Integration Zones. In addition there is a specific focus on the upgrading and development of informal settlements and other marginalised areas.

In terms of the BEPP Guidance Note, Oct 2014, "The definition of catalytic urban development projects are land development initiatives that:-

- *Are integrated, that is mixed and intensified land uses where the residential land use caters for people across various income bands and at increased densities that better support the viability of public transport systems;*
- *Are strategically located within integration zones in cities; and re game changers in that the nature and scope of the projects are likely to have significant impact on spatial form.*
- *Require major infrastructure investment;*
- *Require a blend of finance where a mix of public funds is able to leverage private sector investment as well as unlock household investment;*
- *Require specific skills across a number of professions and have multiple stakeholders." [14]*

There are numerous catalytic projects, several of which are in planning or construction phases:

PROJECTS IN/NEAR IMPLEMENTATION:

1. Cornubia South
2. Cornubia North
3. Dube Trade Port
4. Point Infill, Waterfront & Cruise Terminal
5. Centrum Site & Municipal Complex
6. Warwick
7. Keystone
8. C3 IRPTN Corridor Bridge City to Pinetown
9. C3 IRPTN Node Bridge City
10. C2 Rail Corridor Bridge City to Umlazi
11. Back of Port
12. King Edward Node

[14] Guidance Note for the Built Environment Performance Plan 2015/16 – 2017/18. National Treasury, Oct 2014

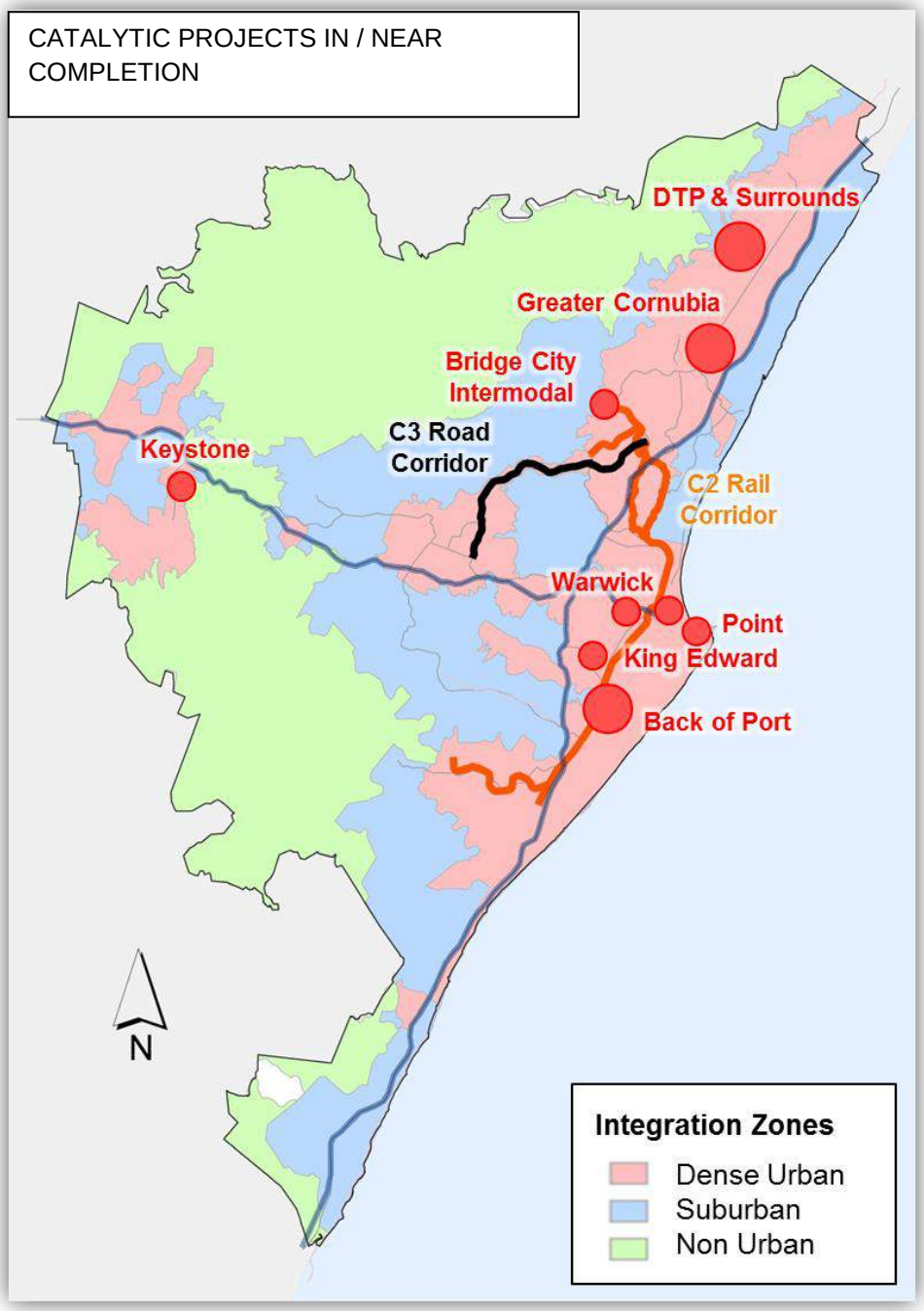


Figure 113: Catalytic Projects near Implementation

PROJECTS IN PREPARATION:

1. Amaoti Informal Settlement Upgrade
2. Avoca Greenfields
3. Virginia Airport Redevelopment
4. Durban Central Business District Human Settlement Projects
5. Umlazi Urban Regeneration
6. Illovo South
7. New Germany Industrial Redevelopment

8. Ntshongweni
9. Mpumalanga Town Centre

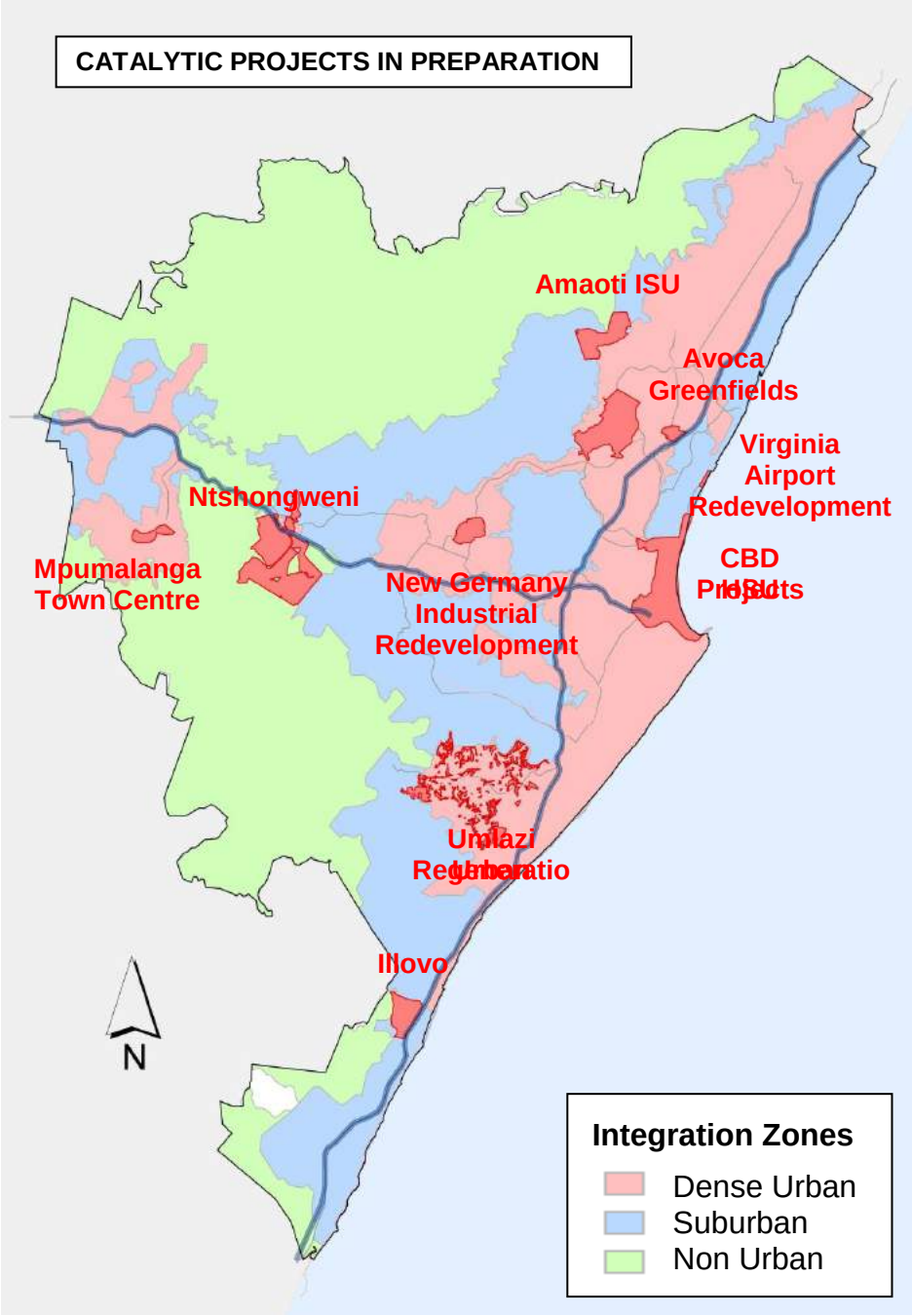


Figure 114: Catalytic Projects in Preparation

IRPTN Phase 1-4 comprises:

Phase 1	***C3 - Road - Bridge City to Pinetown***	***2016***
	C1 - Road - Bridge City to CBD via KwaMashu	***2017***
	C9 - Road - Bridge City to Umhlanga	***2018***
	C2 - Rail - Bridge City and KwaMashu via Berea	
	Road to Umlazi and Isipingo	***2016***
	Mynah and People Mover (Inner city)	***2015***
Phase 2	***C5, C7***	***2022***
Phase 3	***C4, C8***	***2025***
Phase 4	***C6***	***2027***

The table below indicates the proposed MTERF Budget Allocation in support of the BEPP Catalytic Projects 'In or Near Implementation" and "In Preparation".

Table 21: The budget allocations per Integration Zone for the 2016/17-18/19 MTEF

Integration Zone	Budgeted Amount per Theme (Rm from 2016/17 to 2018/19)							
	Transport	Housing	Economic	Roads	Water	Sanitation	Electricity	Social
Prime Corridor	361	258	799	20	1 081	1 651	674	1 774
Dense Urban	580	1 335	69	25	702	87	269	111
Medium & Low-Density Suburban	2 396	1 321	124	253	551	281	161	183
Non-Urban	0	681	42	117	94	18	0	41
Spatially Unassigned	3	39	9	103	0	4	64	10
Total	3 340	3 634	1 043	518	2 429	2 042	1 168	2 119

The table that follows shows the number of projects, the rand value and the percentage that this rand value represents of the annual budget.

Table 22: No. of projects, rand value and percentage of the budget

Integration Zone	Projects		Revised 2016/17		Approved 2017/18		Proposed 2018/19	
	No.	% of Total	Rm	% of Total	Rm	% of Total	Rm	% of Total
Prime Corridor	500	32	2 220	35	2 473	36	2 502	34
Dense Urban	370	24	1 007	16	1 096	16	1 181	16
Medium & Low-Density Suburban	519	33	1 694	27	1 801	26	1 864	25
Non-Urban	96	6	363	6	317	5	429	6
Spatially Unassigned	66	4	1 084	17	1 183	17	1 481	20
Total	1 551	100	6 366	100	6 870	100	7 458	100

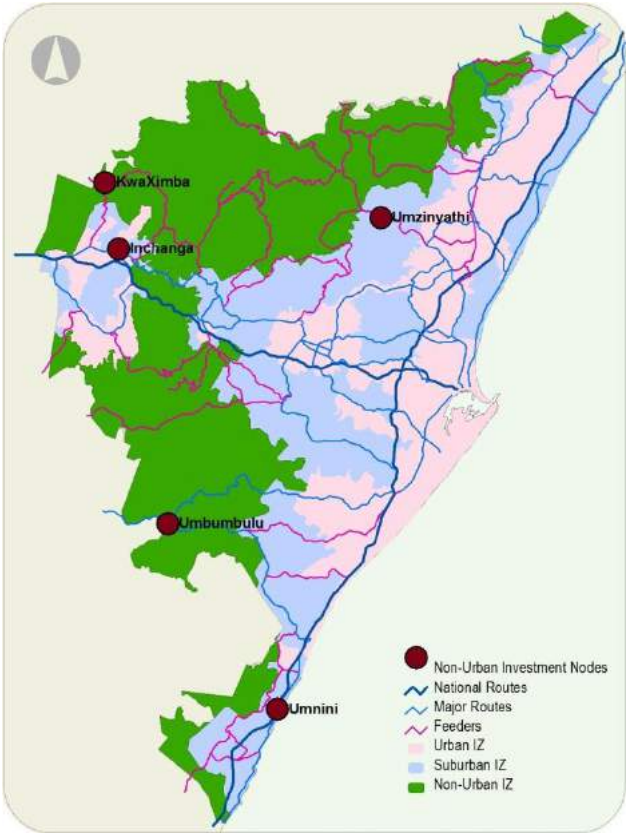
Response to Non-Urban Areas

Five Non-Urban Investment Nodes have been identified, namely Inchanga, KwaXimba, Umzinyathi, Umbumbulu and Umnini. These can be seen on the map below. The Municipality's Integrated Investment Intentions are to:

- Cluster higher order Social and Economic facilities in the Nodes, including Sizakala Centres, Libraries, Clinics, Police etc
- Locate higher order public transport facilities in the Nodes
- Connect the Nodes more strongly to the city's major routes
- Locate Rental Housing for Key Social Sector State Employees (teachers, medical staff, and police)
- Locate Community Gardens and Agri-Hubs in or near the Nodes
- Locate Tourism Nodes in the Investment Nodes, and-or with a clear connection between the Tourism Nodes and Investment Nodes.

There is good potential for upscaling the social facility provision at these nodes working in conjunction with national and provincial departments to align physical planning and budgeting for existing and new facilities.

For the improved connections of the Nodes to the city, work still needs to be done into identifying the road and stormwater programmes to ensure that the routes fulfil their purpose of linking people to social facilities, public transport, and economic activities.



NON-URBAN INVESTMENT NODES

8.8.6 Alignment with Provincial Projects

The Municipality is moving towards aligning Provincial Project priorities with the Spatial Priorities contained in the eThekwini IDP, SDF and BEPP. To this end the eThekwini Municipality has received a list of all planned provincial projects (attached at Annexure 3). Although a large number provincial projects are still directed outside of the municipal area, the following sector budgets are directed within the municipal area.

Sector	No. of Projects within Municipality	Projected Expenditure 2015/16	Projected Expenditure 2016/17
Education	164	**R 292 838 807**	**R 166 944 309**
Health	87	**R 655 791 370**	**R 4 050 000**

It should be noted that for the 2017/2018 year the projected expenditure for Education R166m figure is expected to increase as not all projects have been populated on the system for the MTEF.

For the 2017/2018 year the R166m figure and R 4 m figure are expected to increase as not all projects have been populated on the system for the MTEF.

Provincial and municipal sectors come together through the regular IDP/SDF forum meetings and more recently through National Treasury's Built Environment Performance Planning Process. It is our intention to use these two fora to achieve greater intergovernmental coordination, integration and collaboration on projects that will foster social and economic growth and ultimately not only benefit the eThekwini Municipality but ultimately the Province and the Country as a whole. Provincial Departments are urged to spatially capture and map their Current and Future Expenditure on an ongoing basis to facilitate the spatial transformation and alignment of projects.

8.8.7 Way forward

Guided by the IDP and SDF, the BEPP has identified a pipeline of catalytic projects that will provide the necessary support for spatially aligned Capital and Operating Budgets and improved vertical and horizontal integration of budgets.

ANNEXURES

ANNEXURE 1: SUMMARY OF NATIONAL AND PROVINCIAL POLICY & LEGISLATION

ANNEXURE 2: SUMMARY OF ETHEKWINI MUNICIPALITY SECTOR PLANS

ANNEXURE 3: PROVINCIAL AND SECTOR PROJECTS LIST

ANNEXURE 4: PUBLIC PARTICIPATION AND STAKEHOLDER ENGAGEMENT PROCESS

ANNEXURE 5: SPLUMA PROCESS PLAN

ANNEXURE 6: SPATIAL DEVELOPMENT PLANS

ANNEXURE 7: COUNCIL APPROVED PLANS

ANNEXURE 8: CROSS BOUNDARY PLAN

ANNEXURE 9: CITY DENSIFICATION STRATEGY AND EXISTING METROPOLITAN DENSITIES

ANNEXURE 10: RESPONSE TO COGTA COMMENTS ON DRAFT SDF 2015/2016 SUBMITTED IN JUNE 2015

ANNEXURE 11: COASTAL PLANNING AND COASTAL MANAGEMENT

ANNEXURE 12: AEROTROPOLIS

ANNEXURE 13: HOUSING MAPS AND LISTS

ANNEXURE 14: RELATED MAPS

ANNEXURE 15: SPATIAL DEVELOPMENT FRAMEWORK 2016/2017

ANNEXURE 1: Summary of National and Provincial Policies & Legislation

ACT	SUMMARY OF RELEVANT LEGISLATION
Constitution of the Republic of South Africa, 1996	Section 7(2) – State must respect, protect, promote and fulfill the rights in the Bill of Rights Section 152 – Objects of Local Government Section 153 – Structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community. Participate in national and provincial development programmes Section 195(e) – Peoples needs must be responded to and the public must be encouraged to participate in policy making Schedule 4B – Municipality has executive authority in respect of and the right to administer municipal planning
National Development Plan (NDP) 2030	The National Planning Commission has developed a National Development Plan which focuses on enabling sustainable and inclusive development. The objectives include strong and efficient planning system integrated across the spheres of government. The plan seeks to eliminate poverty and reduce inequality by providing South Africans with a secure foundation from which they can expand their capabilities and improve their life opportunities Some directives towards achieving this include • Developing people's capabilities to be able to improve their lives through education and skill development, health care, better access to public transport, jobs, social protection, rising incomes, housing and basic services and safe communities. One of the critical actions identified in this plan is the need for "New Spatial norms and standards – densifying cities, improving transport, locating jobs where people live, upgrading informal settlements and fixing housing market gaps.
The National Spatial Development Perspective (NSDP)(2006	The NSDP represents a key instrument in the states drive towards ensuring greater economic growth and sustained job creation and the eradication of poverty. The implications it has for the SDF is that it requires it to: • address spatial restructuring • reflect on service backlogs and presents a position on the provision of services, especially in the rural areas • reflect on and make proposals for the spatial implications of social investment
National Strategy on Sustainable Development (2010)	The National Strategy on Sustainable Development builds on the National Framework for Sustainable Development and a number of existing initiatives by business, government, NGO's, academia and other key role players to address sustainability issues in South Africa. It is a forward-looking strategy that regards sustainable development as a long-term commitment that combines environmental protection, social equity and economic efficiency.
Intergovernmental Relations Framework Act, 2000 (Act No. 5 of 2000)	Provides a framework for national government, provincial government and local government to promote and facilitate intergovernmental relations

Local Government: Municipal Structures Act (Act No. 117 of 1998)	Section 19 (2) – A municipal council must annually review the needs of the community, its priorities to meet those needs, its processes for involving the community, its organisational and delivery mechanisms for meeting the needs of the community; and its overall performance in achieving its objectives. Section 19 (3) – a municipal council must develop mechanisms to consult the community and community organisations in performing its functions and exercising its powers. Section 44 (2) (c) – the executive committee must recommend to the municipal council strategies, programmes and services to address priority needs through the integrated development plan and estimates of revenue and expenditure, taking into account any applicable National and Provincial Development Plans. Section 81 – traditional authorities that traditionally observe a system of customary law in the area of the Municipality may participate, through their leaders, in the proceedings of the Municipal Council, in particular, in matters of municipal planning.
Local Government: Municipal Systems Act (MSA) (Act 32 of 2000)	Chapter 5 of the Municipal Systems Act (Act. No. 32 of 2000) provides for the preparation of SDF's. Section 24(1) – Municipality must align its planning with national and provincial planning Section 26(e) – SDF is core component of IDP and SDF must include the provision of basic guidelines for a land use management system • In terms of the MSA, the SDF, as part of the IDP, prevails over any other plan as defined in Section 1 of the Physical Planning Act. • The Public Infrastructure Investment Framework (PIIF) is an integral component of the medium-term to long-term City Development Strategy, and together with the SDF informs the preparation of the IDP. The PIIF is regularly reviewed.
GNR.796 of 24 August 2001:Local Government: Municipal Planning and Performance Management Regulations, 2001	Section (2)4 of the Local Government Planning and Performance Management Regulations require that an SDF should: • Give effect to the DFA principles • Set out objectives that reflect the desired spatial form of the municipality • Contain strategies and policies to achieve the objectives and which should: Indicate desired pattern of land use. • Address the spatial reconstruction and provide strategic guidance regarding the location and nature of development • Set out basic guidelines for a land use management system in the municipality • Set out a capital investment framework for the municipalities development programs • Contain a strategic assessment of the environmental impact of the SDF • Identify programs and projects for the development of land within the municipality • Be aligned with the spatial development frameworks reflected in the integrated development plans of neighbouring municipalities • Provide a plan of the desired spatial form of municipality which: should indicated where public and private land development and infrastructure investment should take place, indicate the desired or undesired utilization of space in a particular area, may delineate the urban edge, should identify areas of strategic intervention and should indicate priority spending areas.
Local Government: Municipal Finance Management Act, 2003(No. 56 of 2003)	The objective of this Act is to secure sound and sustainable management of the financial affairs of municipalities. Section 16. (1) Requires the municipality to approve an annual budget for the municipality and any decision must be accompanied by *inter alia* the following documents: • *17 (b)* measurable performance objectives for revenue from each source and for each

	vote in the budget, taking into account the municipality's integrated development plan; • *17(d)* any proposed amendments to the municipality's integrated development plan following the annual review of the integrated development plan in terms of Section 34 of the Municipal Systems Act;
Municipal Finance Management Act, 2003 (Act No. 56 of 2003)	To secure sound and sustainable management of the financial affairs of municipalities and other institutions in the local sphere of government; to establish treasury norms and standards for the local sphere of government; and to provide for matters connected therewith. To secure sound and sustainable management of Municipal financial affairs, and in particular the management and disposal of public assets, particularly land
Kwazulu-Natal Provincial Growth and Development Strategy (PGDS) (2011	The PGDS provides KZN with a strategic framework for accelerated and shared economic growth through catalytic and developmental interventions. One of the goals of the PGDS is spatial equity through the implementation of effective spatial planning and land management systems • It bolsters the Province commitment to achieving the vision of KwaZulu Natal as a "Prosperous Province with a healthy, secure and skilled population, acting as a gateway to Africa and the World". • The PGDS aims to build this by growing the economy for the development and improvement of the quality of life for all people living in the province. • In this strategy EMA is classified as a primary node within the provincial context as an urban centre with very high existing economic growth and the potential for expansion
KwaZulu-Natal Provincial Growth and Development Plan (2014)	This plan is the implementation plan of the Provincial Growth and Development Strategy. The 2014 review specifically aligns itself to the National Development Plan. The overall goal is to build a better life for all the people of KwaZulu-Natal by the achievement of a number of strategic goals; • Job creation • Human resource development • Human and community development • Strategic infrastructure • Environmental sustainability • Governance and policy and • Spatial equity
KwaZulu-Natal Planning and Development Act, 2008 (Act No. 6 of 2008)	Purpose of a land use scheme is to regulate land use and promote orderly development in accordance with the IDP Although the KwaZulu-Natal Planning and Development Act, 2008 (Act 6 of 2008) is the main planning tool within the Province, it does not refer to Spatial Development Frameworks, and does not give guidelines towards the Development of an SDF. The PDA does however identify a number of principles that municipalities needs to adhere to when a development application is considered. These principles are fairly standard and are largely repeated in each Chapter of the PDA. Schemes are managed by the PDA, and as a scheme needs to be informed by the Spatial Development Framework, it is clear that these principles should be considered when compiling a Spatial Development Framework as well. The principles are the following: • • The potential impact of the proposal on the environment, socio-economic conditions, and cultural heritage; • the impact of the proposal on existing or proposed developments or land uses in the vicinity, or on existing developmental or mineral rights; • the provision and standard of engineering services;

	• the impact of the proposal on the national, provincial and municipal road networks, public transport, municipal services, sewage, water and electricity supply, waste management and removal, policing and security; • access to public transport and health and educational facilities; • The historical effects of past racially discriminatory and segregation legislation on land ownership, land development and access to engineering services and public facilities, and the need to address the historical imbalances; • the protection or preservation of cultural and natural resources, including agricultural resources, unique areas or features and biodiversity; • the natural and physical qualities of the land; • the general principles for land development as stated in Section 3 of the Development Facilitation Act, 1995 (Act No. 67 of 1995), other national norms and standards, frameworks and policies contemplated in Section 146(2)(b) of the Constitution; • the provincial planning and development norms and standards; • the municipality's integrated development plan; • the municipality's scheme; • Any local practice or approach to land use management that is consistent with: o the laws of the Republic; o the provincial planning and development norms and standards; o the municipality's integrated development plan; and o the scheme; • Any relevant other information. This is dependent on specific situations
Spatial Planning and Land Use Management Act, 2013, (Act No. 16 of 2013) (SPLUMA)	Framework Act for all spatial planning and land use management The principles of spatial justice, spatial sustainability, efficiency, spatial resilience and good administration apply to spatial planning Municipal SDF must assist in integrating, coordinating, aligning and expressing development policies and plans emanating from various spheres of government as they apply in the municipal area Municipality may pass by-laws to enforce its land use scheme The objects of SPLUMA are to:- • *Provide for a uniform, effective and comprehensive system of spatial and land use management for the Republic* • *Ensure that the system of spatial planning and land use management promotes social and economic inclusion* • *Provide for development principles and norms and standards* • *Provide for the sustainable and efficient use of land* • *Provide for cooperative government and inter-government relations amongst the national, provincial and local spheres of government; and* • *Redress the imbalances of the past and ensure that there is equity in the application of spatial development planning and land use management"* Section 21 of the Act provides for the content of a Municipal SDF SPLUMA repeals the Physical Planning Act; Less Formal Township Establishment Act and the DFA
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)	NEMA provides a framework for co-operative environmental governance so that government authorities may co-ordinate their efforts to manage the environment. The key principles of NEMA that inform the SDF include the following:

	• environmental, social and economic sustainable development; • the protection of natural resource and the maintenance of natural systems; • the provision of access to resources and environmental management that puts people and their needs first. NEMA requires that these principles be applied by municipalities, and used to undertake environmental impact assessments (EIAs) and to prepare Environmental Management Frameworks (EMFs)
NEMA : Biodiversity Act, 10 of 2004	Provides for the management and conservation of biological diversity in South Africa IDP must align with any bioregional plans
National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003)	Protection and conservation of ecologically viable areas Purpose of Act is sustainable development of identified areas for the benefit of the people Local protected areas are nature reserves or protected environments managed by the Municipality
National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) (NEM:ICA)	To establish a system of integrated coastal and estuarine management, including norms, standards and policies, in order to • promote the conservation of the coastal environment, and maintain the natural attributes of coastal landscapes and seascapes, and to ensure that development and the use of natural resources within the coastal zone is socially and economically justifiable and ecologically sustainable; • to define rights and duties in relation to coastal areas; • to determine the responsibilities of organs of state in relation to coastal areas; • to prohibit incineration at sea; • to control dumping at sea, pollution in the coastal zone, inappropriate development of the coastal environment and other adverse effects on the coastal environment; and to give effect to South Africa's international obligations in relation to coastal matters
Environmental Conservation Act,	Provides for the effective protection and controlled utilization of the environment
National Response to Climate Change White Paper (2012)	The National Response to Climate Change White Paper is the South African Government's response to the threat of climate change. It is a document that is intended to provide guidance in terms of policy development and implementation. The document focuses chiefly on mitigation, but does also include a chapter on adaptation
Infrastructure Development Act, 2014 (Act No. 23 of 2014	Every organ of state must ensure that its future planning or implementation of infrastructure or its future spatial planning and land use is not in conflict with any strategic integrated project implemented in terms of this Act. The Act provides for the facilitation and co-ordination of public infrastructure development which is of significant economic or social importance to the country; to ensure that infrastructure development is given priority in planning, approval and implementation and to ensure that the development goals of the state are promoted through infrastructure development.

The National Housing Code (2009)	The code interprets the Housing Act and Comprehensive Plan for the development of human settlements. The revised Code re-emphasises the vision of the National Department of Human Settlements to promote the achievement of a non-racial, integrated society, the development of sustainable human settlements and quality housing. A number of detailed objectives are to: • Accelerate the delivery of housing as a key strategy for poverty alleviation • Use provision of housing as a major job creating strategy • Ensure that property can be accessed by all as assets for wealth creation and empowerment • Leveraging growth in the economy • Combat crime, promoting social cohesion and improving quality of life for the poor • Support the functioning of the entire residential property market to reduce duality within the sector, by breaking barriers between the first economy and the second economy • Use housing as an instrument for the development of sustainable human settlements, [and to] support spatial restructuring
A Comprehensive Plan for the Development of Sustainable Human Settlements (2004) **"Breaking Ground"**	The Comprehensive Plan is informed by international documents such as the Habitat (Istanbul) Declaration of 1996 to which South Africa was a signatory and based on national legislation such as the DFA (1995) and Housing Act (1997). The objectives of the Comprehensive Plan includes: • Accelerating the delivery of housing as a key strategy for poverty alleviation • Ensuring property can be accessed by all as assets for wealth creation and empowerment • Leveraging growth in the economy • Combating crime, promoting social cohesion and improving quality of life for the poor • Utilising housing as an instrument for restructuring the spatial legacy of apartheid
The Housing Act, 1997 (Act No. 107 of 1997)	The Housing Act of 1997 lays out the principles of housing development in the Republic and defines the roles, responsibilities and functions of the spheres of government.
Social Housing Act, (No..16 of 2008)	The purpose of the Social Housing Act is to contribute to the National priority of restructuring South African society in order to address structural, economic, social and spatial dysfunctionalities; therefore contributing to the Government's vision of Sustainable Human Settlements. Social Housing contributes to widening the range of housing options available to the poor. The purpose of the Act is, amongst others – • to establish and promote a sustainable social housing environment; • to define the functions of national, provincial and local governments in respect of social housing; • to provide for the establishment of the Social Housing Regulatory Authority in order to regulate all social housing institutions obtaining or having obtained public funds;

	• to allow for the undertaking of approved projects by other delivery agents with the benefit of public money; and • to give statutory recognition to social housing institutions.
National Water Act, No.36 of 1998)	*The purpose of this Act is to ensure that the nation's water resources are protected, used, developed, conserved, managed and controlled in ways which take into account amongst other factors -* • *meeting the basic human needs of present and future generations;* • *promoting equitable access to water;* • *redressing the results of past racial and gender discrimination;* • *promoting the efficient, sustainable and beneficial use of water in the public interest;* • *facilitating social and economic development; providing for growing demand for water use;* • *protecting aquatic and associated ecosystems and their biological diversity;* • *reducing and preventing pollution and degradation of water resources;* • *meeting international obligations;* • *promoting dam safety; and* • *managing floods and droughts.*
Subdivision of Agricultural Land, 1970(Act No. 70 of 1970)	This Act governs the subdivision of agricultural land as defined in terms of the Act and such land may fall within the jurisdiction of a local municipality. Future city growth and conversion of all agricultural land will require prior approval in terms of this Act.
Public Transport Action Plan (2007) **National Transportation Master Plan 2050 (NATMAP)**	The strategy is aimed towards the development of a new fully integrated public transport system incorporating all modes within a formal contract based public transport system. Consists of a three phased strategy as follows: • Accelerated Recovery and Catalytic Projects (2007-2010) • Promote and Deliver Basic Networks (2010-2014) • Advance and Sustain Accessible Networks (2014-2020) The overall goal of this initiative is to improve the quality of life for the city's residents through the establishment of an integrated rapid public transport network (IRPTN). A wall to wall plan for the project has been completed. The network will comprise an integrated package of rail and rapid bus trunk routes with dedicated right of ways (ROW), feeder and complimentary services for public transport.
National Land Transport Act, 2009 (Act No.	Land transport planning must be integrated with the land development and land use planning processes

White Paper on Spatial Planning and Land Use Management (2001)	Requires municipalities to prepare an SDF with the following components: • Policy for land use and development • Guidelines for land use management • A capital expenditure framework showing where the municipality intends spending its capital budget • A strategic environmental assessment The SDF should also indicate the following: • direction of growth, • major movement routes • special development areas for targeted management to redress past imbalances • conservation of both the built and natural environment • areas in which particular types of land use should be encouraged and others discouraged • areas in which the intensity of land development could be either increased or reduced The SDF should: • only be a strategic, indicative and flexible forward planning tool to guide planning and decisions on land development • develop a spatial logic which guides private sector investment. This logic primarily relates to establishing a clear hierarchy of accessibility • ensure social, economic and environmental sustainability of the area • establish priorities in terms of public sector development and investment • identify spatial priorities and places where public-private partnerships are a possibility.
The National Heritage Resources Act , 1999) (Act No. 25 of 1999)	Identifies and regulates the declaration or designation of national and provincial heritage sites, protected areas and heritage areas The NHRA and the Provincial Heritage Ordinance promulgated in terms of the NHRA empower local authorities, with the authority of PHRA , to make by-laws for regulating and managing local heritage resource areas or other higher-order heritage resource areas where a responsibility may be delegated.
Disaster Management Act, 2002. (No. 57 of 2002)	The Disaster Management Act provides for; • an integrated and co-ordinated disaster management policy that focuses **on** preventing **or** reducing the risk of disasters, mitigating the severity **of** disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery; and • the establishment of national, provincial and municipal disaster management centres; disaster management volunteers

ANNEXURE 2: SUMMARY OF ETHEKWINI MUNICIPALITY SECTOR PLANS

Sector Plan	Summary of the plan
LTDF- "Imagine Durban"	In essence, the Imagine Durban process involves enabling us to place a long term lens over the existing planning framework to produce a clear and effective long term action plan that outlines the steps to be followed in order to implement and operationalise our vision for the future. More importantly, it is about creating a community-based process to agree on a desired development path and to mobilize resources across the Municipality which will afford an action oriented framework with specific targets, implementable programmes and measurable project outcomes.
Package of Plans (Integrated Development Plan, Spatial Development Framework, Spatial Development Plans, Local Area Plans, Functional Area Plans, Special Projects and Schemes)	The SDF provides the parameters to guide sector and local level initiatives. The package of plans facilitates the translation of the strategic intentions of the SDF through a number of lower order plans culminating in a Scheme that is responsive to the needs and spatial challenges of the municipality. Refer Annexure 6 for a list of the Council Approved Plans
Water Conservation Guidelines Green Landscaping Guidelines Energy Efficiency Guidelines and Green Roof Guidelines	These guidelines were prepared through the Greening Durban 2010 Programme and subsequent work, an initiative aimed at ensuring that a positive environment legacy is achieved. The information contained in the water conservation guideline are around daily management of water and ensures that water is used efficiently and effectively. The green Landscaping guidelines provide information which is replicable to any landscaping project thereby creating an aesthetically pleasing, cost effective, functional, low maintenance and environmentally sound landscape. The energy efficiency guidelines provide information which can be used to stimulate wider implementation of intelligent building design thereby becoming more energy and resource efficient. The green roof guidelines provide recommendations on the creation of green roofs (substrates, planting palettes etc.) in Durban and their benefits in terms of addressing climate change and promoting biodiversity
Municipal Adaptation Plan, Health and Water	An increase in global surface temperature leads to changes in atmospheric circulation and sea levels, which in turn alters rainfall patterns and increases the intensity of storms. Durban already faces challenges associated with water availability and storms, but the nature and occurrence of these events is likely to change with altered climates. The impact of these direct, physical, climate risks have multiple, interlinked, secondary and tertiary effects including effects on social and institutional arrangements. Water availability and quality, and health (including food security) have been identified as potentially being critically affected by climate change in Durban. The institutions central to the responses to these challenges within eThekwini Municipality are: • Water Sector Water and Sanitation (Coastal, Storm water and Catchment Management and Coastal Policy) • Health Sector Environmental Health (Clinical Health; Social Development (food security); and Communicable Disease Control. In addition to the health and water sectors, the Disaster Management Department is affected through the need to respond to emergency situations. Responses by the respective institutions need not be specific to that institution. On the contrary, the best adaptation responses are likely to be shared between institutions and departments and provide solutions to a range of threats.
Energy Strategy of 2008	The Vision Statement of the Energy Strategy reads:: Encourage sustainability in energy sector development and energy use though efficient supply-side and demand-side practices and increased uptake of renewable energy sources. Thereby: Minimising the undesirable impacts of energy use upon human health and the environment, particularly climate change and contributing towards secure and affordable energy for all. The Energy Strategy – in line with national and provincial policies – sets targets for the reduction of Greenhouse Gas emissions in four sectors: residential, transport, municipal operations, and industry/commercial/agricultural. The reductions are to be achieved through energy efficiency and generation of energy from renewable sources. In the Durban Climate Change Strategy (DCCS) more detailed targets for energy efficiency and

	generation of energy from renewable sources have been set that will replace the targets in the Energy Strategy once the DCCS has been adopted.
eThekwini Agricultural Status Guidelines	This status quo report provides an overview of the potential to undertake agricultural activities within the EMA. As such it provides an assessment of the natural resources, infrastructure, agricultural activities and products, markets and support mechanism relating to agricultural sector.
Agricultural Policy for eThekwini	This document presents a policy for future agricultural development in the rural areas of the eThekwini Municipality. The intended purpose of the policy is to promote integrated, coordinated and sustainable agricultural development in these areas.
Economic Development Strategy	The strategy provides a framework within which to develop partnerships with business and society to drive economic initiatives, and guidance to maintain high quality core infrastructure that serve key economic nodes in the EMA. The Economic Development Strategy (EDS) seeks to improve the business environment within key economic nodes to encourage growth and further investment, provides a framework for the identification and development of catalytic projects, encourages broad based black economic empowerment (BBBEE) and promotes small, medium and micro-enterprises (SMMEs).
eThekwini Housing Sector Plan	The Housing vision visualizes " The creation of sustainable human settlements in eThekwini Municipality with a view to ensuring that ... all residents will have access to a housing opportunity which includes secure tenure, basic services and support in achieving incremental housing improvements in living environments with requisite social, economic and physical infrastructure." The Municipality has various housing programmes, some of which overlap but fall under two main groups; individual ownership and rental. Under individual ownership there is Rural Housing, Greenfield, Upgrading and Affordable Housing. Under rental there is Social Housing, Council Rental Stock and Community Residential Units (CRU's). The Informal Settlement Program is the main focus of eThekwini Housing and its principal intention is to upgrade informal settlements wherever possible and only to relocate if upgrading is impossible for health, safety or technical reasons. The Greenfields Program as well as other related individual ownership programs complements the Informal Settlement Upgrading Program and the Rural Program lies outside the Urban Development Line (UDL). Concil and Provincial rental stock is being transferred to tenants in terms of the Enhanced Discount Beenfit Scheme whereby tenants take ownership of their units at mimimal or no costs. The SDF addresses housing need and backlog by identifying areas for residential intensification, infill and redevelopment and well as areas for new residential growth that support public transport, increase accessibility to social and economic opportunities. The Housing Sector Plan is currently in the process of being updated.
Integrated Transport Plan	EThekwini Integrated Transport Plan has been prepared in terms of National Land Transport Act, 2009 (Act 5 of 2009) and addresses the period 2010-2015. ETA's (eThekwini Transport Authority) mission statement is "To provide and manage a world-class transport system with a public transport focus, providing high levels of mobility and accessibility for the movement of people and goods in a safe, sustainable and affordable manner". This has been translated into five goals: Effective transport, efficient transport, sustainable transport, safe & secure transport and black economic empowerment. The five primary focus areas in the ITP are: Public transport, Freight, Road Safety, Roads, Traffic management and control. Transport systems and services aim to: improve quality of life for all, support government strategies for economic growth and social development, improve levels of accessibility and mobility, minimise time spent in transit, be economically and environmentally sustainable as well as make provision for community participation
Water Services Development Plan	A Water Services Development Plan is a plan to progressively ensure efficient, affordable, economical, and sustainable provision of water services (i.e. Water and Sanitation services). It deals with socio economic, technical, financial, institutional and environmental issues as they

	pertain to water services.
eThekwini Disaster Management Framework	In compliance with the Disaster Management Act No. 57 of 2002, the eThekwini Municipality has compiled a Disaster Management Framework. The Framework is based on the nationally accepted four key performance areas (KPA) viz.: Integrated institutional capacity for disaster risk management; Disaster risk assessment; Disaster risk reduction; Response and recovery The Disaster Management Framework also highlights the need to establish eThekwini Municipal Disaster Management Advisory Forum. The forum will establish task teams that will deal with projects requiring specialist inputs such as City Wide Risk Assessment; South Durban Basin Off-site Emergency Plan and Municipal Adaptation Plan. The framework talks to establishment of Disaster Operations centre where all disaster management operational activities are coordinated. Each of the departments involved have specific response and/or recovery roles and functions, which includes the following generic requirements. The Departmental Heads: must ensure that Disaster Risk Management Plans are compiled and maintained within their respective departments. Each department is responsible for the following: • Compilation of pro-active departmental disaster risk management programmes to support disaster risk reduction • Compilation of reactive departmental disaster management plans to ensure service continuation during emergency/disaster situations • Submit departmental disaster management plans to the Head of Disaster Management and ensure regular review of such plans • Provide a representative at the Disaster Operations Centre if this has been activated

ANNEXURE 3: PROVINCIAL AND SECTOR PROJECTS LIST

Department of Labour
Services are of a support nature i.e. supporting projects for other stakeholders.

Department of Water Affairs
No 2016/17 MTEF funding allocation.

KZN Treasury
No funding allocation. Dube Tradeport

Project Name		Location	Budget	Implementation Timeframe
	2015/2016			
TradeZone 1 B – Bulk Infrastructure		TradeZone	R14 million	August 2015to February 2016
Block D – Double Basement		SupportZone 1	R196million	26 March 2015 to 26 July 2016
	2016/2017			
AgriZone 2 Bulk Infrastructure		AgriZone 2	R300 million	July 2016 to March 2017
Block F mixed use development		SupportZone 1	R200 million	July 2016 to May 2018
Internal public transport Infrastructure		Site Wide Infrastructure	R28 million	2016/2017 – 2017/2018
Multi Storey Parkade		SupportZone 1	R302 million	January 2017 to December 2018
TradeZone 2 bulk Infrastructure		TradeZone 2	R270 million	34 months
Hlawe River Sewer line		Enabling Infrastructure	R50 million	July 2016 to March 2017
	2017/2018			
uShukela Business park		TradeZone 3	R153 million	Complete 2018/ 2019 financial year
TradeZone 2 bulk infrastructure		TradeZone 2	R270 million	Complete 2018/ 2019 financial year

Durban North

Project Name	Location	Budget	Implementation Timeframe
School Safety Campaigns	Sydenham, INK and Phoenix Cluster		April 2016 – November 2016
Substance abuse	Durban Central & Phoenix Cluster		April 2016 – December 2016
Sexual Offences			April 2016 – March 2017
Stolen Goods			April 2016 – March 2017
Stock Theft	Inanda Cluster		April 2016 – March 2017
Volunteer social crime prevention			April 2016 – March 2017
Societal education of CPF/CCPA/Ward Safety Committees/VSCPP/Traditional Leaders			April 2016 – March 2017
Sports Against Crime			April 2016 – March 2017
Auditing all safety structures			April 2016 – March 2017
Communities in dialogue			April 2016 – March 2017
Youth against crime			April 2016 – March 2017
Public Transport Violence			April 2016 – March 2017
Community Safety structures launch			April 2016 – March 2017
Service Delivery Protests			April 2016 – March 2017
Campaigns Against Police Killings			April 2016 – March 2017
Hostel Monitoring			April 2016 – March 2017
Monitoring of Elections 2016			April 2016 – March 2017
Monitoring & Supporting CPF and CCPA initiatives			April 2016 – March 2017
Joint Awareness by the 3 Clusters			April 2016
Festive Season Programmes	Durban Central and Phoenix Cluster		December 2016 – January 2017

Durban West

Project Name	Location	Budget	Implementation Timeframe
School Safety Campaigns	Durban West		April 2016 – March 2017
Substance abuse	Durban West		April 2016 – March 2017
Sexual Offences	Durban West		April 2016 – March 2017
Stolen Goods	Durban West		April 2016 – March 2017
Stock Theft	Durban West		April 2016 – March 2017
Volunteer social crime prevention	Durban West		April 2016 – March 2017
Societal Education	Durban West		April 2016 – March 2017
Sports Against Crime	Durban West		April 2016 – March 2017
Traditional Leaders crime fighting campaigns	Durban West		April 2016 – March 2017
Communities in dialogue	Durban West		April 2016 – March 2017
Crime Summit	Durban West		April 2016 – March 2017
Youth Against crime	Durban West		April 2016 – March 2017
Public Transport Violence	Durban West		April 2016 – March 2017
Community Safety Structures launch	Durban West		April 2016 – March 2017
Accommodation bookings	Durban West		April 2016 – March 2017
Police Capacitation	Durban West		April 2016 – March 2017
Operation Sukuma Sakhe	Durban West		April 2016 – March 2017

Durban South

Project Name	Location	Budget	Implementation Timeframe
School Safety Campaigns			April 2016 – March 2017
Substance Abuse			April 2016 – March 2017
Sexual Offences			April 2016 – March 2017
Stolen Goods			April 2016 – March 2017
Stock Theft			April 2016 – March 2017
Volunteer social crime prevention			April 2016 – March 2017
Societal Education			April 2016 – March 2017
Sports Against Crime			April 2016 – March 2017
Traditions Leaders			April 2016 – March 2017
Communities in dialogue			April 2016 – March 2017
Public Transport Conflict			April 2016 – March 2017
Police Killings			April 2016 – March 2017
Illegal Firearms			April 2016 – March 2017
Evaluation of Police Stations			April 2016 – March 2017
Festive Season programmes			April 2016 – March 2017
Capacitation of Community Safety Structures			April 2016 – March 2017

Department of Arts and Culture

Project Name	Location	Budget	Implementation Timeframe
Support to Co – operatives	Ward 4	15000	April 2016 – March 2017
Co-operatives	Ward 67	10000	April 2016 – March 2017
Visual Art and Crafters Workshop	Ward 21	15000	May 2016
Africa Day	Ward 87, 16	60000	May 2016
Choral music eliminators	Ward 32	35000	May 2016
Maidens Conference	Ward 7	160000	June 2016
Youth Day Symposium	Ward 94, 3	30000	June 2016
Music Masterclass	Ward 84	10000	June 2016
Andhra Maha Sabha Isteaford	Ward 69	30000	June 2016
Durban Music School Street Festival	Ward 32	20000	June 2016
Inmates Performing Arts Workshop	Ward 24	10000	June 2016
Recycle Material Train Workshop	Ward 14	20000	July 2016
Community Artists performing at National Art Festival	Grahamstown & Potchefstroom (Artists from Metro)	110000	July 2016
Film / Video Development	Wards 32, 35	25000	July 2016
Durban Dance Movement Festival 2016	Ward 27	30000	July 2016
Crafters Workshop for the Disabled	Ward 41	10000	July – September 2016
Women's Month Celebration	Ward 61, 64	50000	August 2016
Film and Video Workshop	Ward 103	15000	August 2016

Project Name	Location	Budget	Implementation Timeframe
Kollig Festival taking arts to the people	Wards 18, 36, 97	30000	August 2016
Heritage Festivals	Ward 79	125000	September 2016
Treater Training	Ward 37	25000	September 2016
Inter Cultural Exchange youth camp	Margate (Schools from Metro)	120000	September 2016
Theatre Masterclass	Ward 97	45000	September 2016
Durban Diwali Festival 2016	Ward 27	60000	October 2016
Multicultural Exposure	Ward 49	80000	October 2016
Senior Citizen	Ward 60	25000	October 2016
Durban International Blues Festival	Wards 32, 26	10000	October 2016
Sewing Workshop & Fashion Design	Ward 69	50000	October 2016
Durban Diwali Festival	Ward 27	30000	October 2016
Last Night of the proms	Ward 27	20000	October 2016
Ingoma Yaseclemont	Ward 21	65000	December 2016
Ingoma Yasemnini	Ward 96	30000	December 2016
PWD: Khanya Hospice Festival / Multicultural Expose	Ward 99	15000	December 2016
Musho Festival	Ward 32	25000	January 2017
Recycling Material	Ward 66	10000	January 2017
Choral Training	Ward 32	20000	January 2017

Department of Economic Development

Project Name	Project Description & Beneficiaries	Project Locality	Budget
Gijima KZN LCF Call for Proposals 6 (Auto)	Challenge fund targeted for the private sector partnership-based projects. Grant funding of up to 70% of total project cost is available for the manufacturing/ productive sectors. R1 000 000.00 to R5 000 000.00 per project	Province-wide, depends on approved applications closed on 21 October 2015	
Sugar cane initiative	Appointment one or more partner/s within the province of KwaZulu Natal who have the capacity to provide technical and/ or financial support to small scale sugar cane growers within the province of KwaZulu Natal.	Sugar Cane areas within the province bid acceptance closed on 30 October 2015	R8,000,000.00
Ethekwini Industrial Economic Zones (IEH)	Feasibility Study, Business Plan and Implementation Plan for the Automotive Sector. The next phase is the appointment of the Project Facilitation team that will drive implementation, sourcing funding and sorting occupancy in the Hub	Ethekwini	R35 000 000.00 (for the whole Province)
Co-operative Training-Training of Trainers (Coastal FET)	Skills development programme that benefits co-ops in the province. This assists both the existing and the aspiring co-ops. Current	All Districts-Province wide	R 11,554,664.00
SMME Training & Capacity Building	Skills development programme done by the specialist in the field to benefit small businesses.	Province wide	R 3,000,000.00
District Municipality Investment and Promotion Facilitation Strategies	Development of a strategy and implementation plan that will assist the municipality to attract inward investment for the existing investment opportunities.	Province wide	R 1,500,000.00
Provincial Informal Businesses Database Development and Archiving	The development of the data base for the informal businesses in the districts together with the informal economy registration process.	Province wide	R 600,000.00

Development of regulations for the Provincial Business Act	Development of regulations for the reviewed Business Act to benefit municipalities and businesses.	Province wide	R500,000.00
SMME and Cooperative Data Register	Data base update on all the provincial SMME's and Cooperatives	Province wide	R 600,000.00
Tourism Graduate Development Programme (Unemployed Graduate Programme)	Skills development project that also places tourism graduates in Municipalities. This benefits the unemployed tourism youth that has a tourism qualification. Current	Province wide	R 1,000,000.00
Tourism Mentorship Programme	A mentorship programme for existing tourism small businesses. Current	Province wide	R 800,000.00
Route Development Strategy	Feasibility and Business Case for the development of tourism routes for the local municipalities and benefits both the municipality and tourism businesses. Current	Province wide	R 1,000,000.00
Tourism Skills Audit	An audit of the skills on tourism businesses with the aim to formulate skills development programmes. Current	Province wide	R 500,000.00
Provincial Tourism B-BBEE Baseline Study	Research and Development project. Current	Province wide	R 500,000.00
Unizulu Student Bursary	Capacity building programme in partnership with the university of Zululand to benefit youth learning about the cooperatives.	Province wide	R6, 580, 701.00
Outreach programmes	Information sharing and consultation sessions • Consumer Protection Act • Liquor Act • Business Act	Province wide	
Special events	Events to share information and possibly unlock economic development opportunities • East 3 Route Legacy	Province wide	

	project • SMME Fairs and Exhibitions • KZN Fashion Week • RLED Annual Summit • Green Economy Conference • Africa Bike Week • Dundee July • Provincial Career Expo • Royalty Soapie Awards • MTV Awards		
Aerotropolis	Development of the Aerotropolis strategy, masterplan, airlift strategy, Aerotropolis Institute and EIA. The establishment of a Project Management Unit		
Establishment of KZN Maritime Institute	The establishment of the Maritime Institute.		
Maritime Cluster	Facilitation of operation of the Maritime Cluster		
Ocean Lab	Development of the Ocean Lab		
Research	Appointment of Green Economy Chairperson, Agroprocessing Chairperson and Mineral Beneficiation Chair	Province wide	
Technical Assistance Fund			R1,250,000.00
Industrial Symbiosis	Flagship project of pairing complementary industries for purposes of recycling waste		R1,500,000.00
Alien Vegetation Clearing Projects	Various (82)	Province wide	
KZN SEA/EMF programme	Finalisation and development of provincial environmental spatial framework for integration of development imperatives into environmental decisions [PGDP		

	intervention]		
Promotion of SEA	Promoting strategic environmental assessment tools as an alternative to EIA processes [Norms and Standards, SEA and capacity programme}		
Development of environmental management and development strategy	As part of the PDGP interventions	Province wide	
Environmental Information Management System	For purposes of improving environmental data management, EIA and WL application records	Province wide	
Development of Estuarine Management Plans			
Coastal Management Programme and Implementation			
Waste and Chemicals Management Programme	Small recyclers mini-conference, KZN recycling report, Municipal assistance i.t.o. waste management and e-waste material recycling facility		

Department of Transport

Project Name	Location	Budget	Implementation Timeframe
MGENI RIVER BRIDGE ON D1027 (Design and Supervision)	Durban	300 000	2016/17
Reseal and Rehab			
Heavy Rehab	D776	30 113 429	2016/17
	Professional fees D776	600 000	2016/17
	D995	11 000 000	2016/17
	Professional fees Dd9995	1 500 000	2016/17
	P104	4 000 000	2016/17
	P1-1(RHS)	25 000 000	2016/17
	Professional fees P1-1	675 000	2016/17
	P197-1	4 000 000	2016/17
	P197-3	33 522 388	2016/17
	Professional fees P197-3	1 500 000	2016/17
	P448	30 000 000	2016/17
	Professional fees P448	1 500 000	2016/17
	P455	28 500 000	2016/17
	P 45	1 750 000	2016/17
	P530-2	14 000 000	2016/17
	P530-2	1 500 000	2016/17
	P79-1	5 000 000	2016/17
	P79-2	6 000 000	2016/17
Reseal	P80	7 007 000	2016/17
	Professional fees P80	1 390 119	2016/17
Region Projects			
Betterment & Regravelling	Betterment & Gravelling Road - D1011	7 200 000	2016/17
	Betterment & Gravelling Road - D143	850 000	2016/17

	Betterment & Gravelling Road - D1613	1 600 000	2016/17
	Betterment & Gravelling Road - D33	1 400 000	2016/17
	Betterment & Gravelling Road - D435	1 100 000	2016/17
	Betterment & Gravelling Road - D535	1 600 000	2016/17
	Betterment & Gravelling Road - D706	1 150 000	2016/17
	Betterment & Gravelling Road - D757	950 000	2016/17
	Betterment & Gravelling Road - D870	4 500 000	2016/17
	Betterment & Gravelling Road - D988	950 000	2016/17
	Betterment & Gravelling Road - D989	1 500 000	2016/17
	Betterment & Gravelling Road - L2727	610 000	2016/17
	Betterment & Gravelling Road - P197/2	1 500 000	2016/17
	Betterment & Gravelling Road - P529	1 500 000	2016/17
	Betterment & Gravelling Road - P725	2 000 000	2016/17
	Betterment & Gravelling Road - P98	4 500 000	2016/17
	Betterment & Gravelling Road D1506	1 531 000	2016/17
	Betterment & Gravelling Road P101	1 600 000	2016/17
Blacktop Patching	Blacktop Patching - Fuel, oil and Lubricants	500 000	2016/17
	Blacktop Patching - Hired Plant	1 487 000	2016/17
	Blacktop Patching -	2 500 000	2016/17

	Materials		
	Blacktop Patching on P1, P400, P448, P82, P85 & P455	2 000 000	2016/17
	Blacktop Patching on P259, P385, P423 & P504	2 000 000	2016/17
	Blacktop Patching on road D995, D300, D1058 & P78	200 000	2016/17
	Blacktop Patching on road P242, P197/1, P88, P80, P578, D300 & P152	4 000 000	2016/17
	Blacktop Patching on road P398, P426, P99, P79, P94, P96, P98, P2/1, P2/2, P521, P530 & P585	4 000 000	2016/17
	Blacktop Patching on road P489, P725 & P21/2	2 000 000	2016/17
	Blacktop Patching on road P93, P577 & P100	2 000 000	2016/17
	Blacktop Patching P455, P559, P504, P1/1, P448	200 000	2016/17
	Blacktop Patching P489, P725, P21/2	200 000	2016/17
	Blacktop Patching P80, P21/2, P197/1 & P88	200 000	2016/17
	Blacktop Patching P96,P2/2, P100	200 000	2016/17
	Blacktop Patching P98, P79	200 000	2016/17
	Supply of Labour - D1002, D1004	200 000	2016/17
	Supply of Labour D1614	200 000	2016/17
	Supply of Labour on road P152, D1058, P78	200 000	2016/17

	Supply of Labour on road P21/2 sec 1, D995 &P578	200 000	2016/17
	Supply of Labour on road P242,P80,P88&D300	200 000	2016/17
	Supply of Labour on road P489 & D1010	200 000	2016/17
	Supply of Labour on road P78 & P529	200 000	2016/17
	Supply of Labour on road P97, P578, D300	200 000	2016/17
	Supply of Labour P100, P718, D870	200 000	2016/17
	Supply of Labour P426, P530, P455, P85	200 000	2016/17
	Supply of Labour P426,P530,P79	200 000	2016/17
	Supply of Labour -P504, D210, P85	200 000	2016/17
	Supply of Labour -P551, P559, P255	200 000	2016/17
	Supply of Labour P718 & P259	200 000	2016/17
	Supply of Labour P725, P197/1, P21/2 sec 2	200 000	2016/17
	Supply of Labour P79, P100, P2/2	200 000	2016/17
	Supply of Labour P98, P96, P94, P93	200 000	2016/17
Blading	Blading - Materials	100 000	2016/17
	Blading - Plant Hire	3 015 400	2016/17
Causeway Construction	Causeway - (A583) L3104	1 700 000	2016/17
	Causeway - (D1652) L3105	2 100 000	2016/17

	Causeway - D1608	3 500 000	2016/17
Drain clearing & Verge Maintenance	Drain Cleaning - Fuel, oil and Lubricants	100 000	2016/17
	Drain Cleaning - Hired Plant	2 000 000	2016/17
	Drain Cleaning - Materials	600 000	2016/17
	Drain Cleaning and Verge Maintenance on D210 & P504 Ntshongewni - Cliffdale	350 000	2016/17
	Drain Cleaning and Verge Maintenance on D521	200 000	2016/17
	Drain Cleaning and Verge Maintenance on P1/1 km 0-4 Durban Emberton, P1/2 Winston Park & P1/3 Drummond Cato Ridge	1 500 000	2016/17
	Drain Cleaning and Verge Maintenance on P100 Section 1 &2	350 000	2016/17
	Drain Cleaning and Verge Maintenance on P100 Section 3	200 000	2016/17
	Drain Cleaning and Verge Maintenance on P197/1 Cut 1 & Cut 2	350 000	2016/17
	Drain Cleaning and Verge Maintenance on P197/3 Cut 1 & Cut 2	300 000	2016/17
	Drain Cleaning and Verge Maintenance on P2/1 Duffs Road Verulam, P99, P585, P94,P239	800 000	2016/17
	Drain Cleaning and Verge Maintenance on P2/2 Verulam to New Airport	800 000	2016/17

	Drain Cleaning and Verge Maintenance on P21/2 Section 1 & 2	800 000	2016/17
	Drain Cleaning and Verge Maintenance on P242 Cut 1 and Cut 2	350 000	2016/17
	Drain Cleaning and Verge Maintenance on P245, P324, P119, D732 & D94	200 000	2016/17
	Drain Cleaning and Verge Maintenance on P255 & P259 Hillcrest-Molweni	350 000	2016/17
	Drain Cleaning and Verge Maintenance on P3	500 000	2016/17
	Drain Cleaning and Verge Maintenance on P385	200 000	2016/17
	Drain Cleaning and Verge Maintenance on P398/2 Sec 1	1 000 000	2016/17
	Drain Cleaning and Verge Maintenance on P400 Section 2	500 000	2016/17
	Drain Cleaning and Verge Maintenance on P423 & P556	300 000	2016/17
	Drain Cleaning and Verge Maintenance on P426 Westbrook Tongaat Cut 1 & 2	300 000	2016/17
	Drain Cleaning and Verge Maintenance on P448	800 000	2016/17
	Drain Cleaning and Verge Maintenance on P455 Cut 1 & 2	350 000	2016/17
	Drain Cleaning and Verge Maintenance on P530	200 000	2016/17

	Drain Cleaning and Verge Maintenance on P551 & P559 Shongweni Station Road	300 000	2016/17
	Drain Cleaning and Verge Maintenance on P577	200 000	2016/17
	Drain Cleaning and Verge Maintenance on P78 & P88	200 000	2016/17
	Drain Cleaning and Verge Maintenance on P79/1 and P79/2 Cut 1 and Cut 2	600 000	2016/17
	Drain Cleaning and Verge Maintenance on P80 Cut 1 & Cut 2	300 000	2016/17
	Drain Cleaning and Verge Maintenance on P82	1 000 000	2016/17
	Drain Cleaning and Verge Maintenance on P85 Cut 1 & 2	300 000	2016/17
	Drain Cleaning and Verge Maintenance on P93 km 0-12 Kwa Mashu Inanda	1 200 000	2016/17
	Drain Cleaning and Verge Maintenance on P96	300 000	2016/17
	Drain Cleaning and Verge Maintenance on P98	300 000	2016/17
	Labour Supply Contract: A538, D1010 & P725	200 000	2016/17
	Labour Supply Contract: D1613 & D1652	200 000	2016/17
	Labour Supply Contract: P197/1, P80, A446	200 000	2016/17
	Labour Supply Contract: P242, P3 & P197/3	200 000	2016/17

	Labour Supply Contract: P426, P530, P101 & P535	200 000	2016/17
	Labour Supply Contract: P489, D986 & P740	200 000	2016/17
	Labour Supply Contract: P528, D826 & D816	200 000	2016/17
	Labour Supply Contract: P559, P551, P82, P448 & P245	200 000	2016/17
	Labour Supply Contract: P94, P2/2 & P96	200 000	2016/17
	Labour Supply Contract:P551, P504 & P85	200 000	2016/17
	Litter Collection P448, P82, P1/1, P1/2, P1/3, P400, P398, P93, P85, P94, P96	1 000 000	2016/17
	Noxious Weeds on P82, P1/1, P1/2, P1/3, P93, P85, P400 & P448	400 000	2016/17
	Tree Felling & Bush Clearing P1/1, P1/2, P1/3 & P400	200 000	2016/17
	Tree Felling & Bush Clearing P82, P259, P398 & P448	200 000	2016/17
Guardrail repairs	Gaurdrail Installation & repairs on Road D1060 & D1011	200 000	2016/17
	Gaurdrail Installation & repairs on Road D157 & D12	200 000	2016/17
	Gaurdrail Installation & repairs on Road D986, P529, P78 & P88	200 000	2016/17
	Gaurdrail Installation & repairs on Road P1/1	200 000	2016/17
	Gaurdrail Installation & repairs on Road P1/2 &		2016/17

	P1/3	200 000	
	Gaurdrail Installation & repairs on Road P197/1, P80, D1058 & P740	200 000	2016/17
	Gaurdrail Installation & repairs on Road P2/1 & P2/2	200 000	2016/17
	Gaurdrail Installation & repairs on Road P242, P21/2, D995 & D996	200 000	2016/17
	Gaurdrail Installation & repairs on Road P3, P578 & P197/3	200 000	2016/17
	Gaurdrail Installation & repairs on Road P385 & D535	200 000	2016/17
	Gaurdrail Installation & repairs on Road P398	200 000	2016/17
	Gaurdrail Installation & repairs on Road P423, D1002 & D1004	200 000	2016/17
	Gaurdrail Installation & repairs on Road P448 & P400	200 000	2016/17
	Gaurdrail Installation & repairs on Road P504, P559 & P551	200 000	2016/17
	Gaurdrail Installation & repairs on Road P725, P489, D1010 & D991	200 000	2016/17
	Gaurdrail Installation & repairs on Road P82	200 000	2016/17
	Gaurdrail Installation & repairs on Road P85 & P455	200 000	2016/17
	Gaurdrail Installation & repairs on Road P93 & P100	200 000	2016/17
	Gaurdrail Installation & repairs on Road P94	200 000	2016/17

	Gaurdrail Installation & repairs on Road P96	200 000	2016/17
	Gaurdrail Installation & repairs on Road P98 & P530	200 000	2016/17
	Guardrail Repair - Materials	6 000 000	2016/17
	Road Safety Measures North	3 500 000	2016/17
	Road Safety Measures South	3 500 000	2016/17
Handrail Replacement/Repairs	Handrail Rep/Replacement Contract 1	400 000	2016/17
	Handrail Rep/Replacement Contract 2	400 000	2016/17
Maintenance of fence & km posts	Fencing & KM post Maint - Materials	500 000	2016/17
	Installation of KM Mark (North)	200 000	2016/17
	Installation of KM Mark (South)	200 000	2016/17
Maintenance of information/guidance signs	Information & Direction signs Maintenance materials	839 600	2016/17
	Information & Direction signs Maintenance North	200 000	2016/17
	Information & Direction signs Maintenance South	200 000	2016/17
Maintenance of regulatory/warning signs	Mantainance of Traffic Signals Contract 1	10 000	2016/17
	Mantainance of Traffic Signals Contract 2	10 000	2016/17
	Regulatory & Warning Signs - Materials	1 000 000	2016/17
	Regulatory & Warning Signs Contract 1	3 440 000	2016/17

	Regulatory & Warning Signs Contract 2	3 440 000	2016/17
Minor Structure repairs	Bridge Repairs - Services	2 046 000	2016/17
New Gravel Road	Kweyama Road L3069	1 500 000	2016/17
	Magwaza Road L2980	1 100 000	2016/17
	Masibhentsu Road L3074	1 650 000	2016/17
	Mpola Road	1 200 000	2016/17
Patch Gravelling	Patch Gravelling - Fuel, oil and Lubricants	200 000	2016/17
	Patch Gravelling - Hired Plant	2 500 000	2016/17
Road Marking & Studs	Road Marking various tarred rds	11 200 000	2016/17
	Road Stud Grade 1 - Contract 1 North P448	200 000	2016/17
	Road Stud Grade 1 - Contract 1 South P3 & P21/2	200 000	2016/17
	Road Stud Grade 1 - Contract 2 North P82	200 000	2016/17
	Road Stud Grade 1 - Contract 2 South P80 & P197/3	200 000	2016/17
	Road Studs - Materials	2 000 000	2016/17
Zibambele contractors	ZIBAMBELE CONTRACTORS: METRO	11 500 000	2016/17
Zibambele tools	ZIBAMBELE CONTRACTORS: METRO	700 000	2016/17

Umgeni Water

Project Name	Location	Budget	Implementation Timeframe
Upgrade of Hazelmere System	Wards 58,60&61	Project complete	Project complete
Maphephethwa WTP Upgrade	Ward 2	R61 290 000 (Subject to review)	2015/16
Umkhomazi Water Supply Project	Ingwe, Richmond, Mkhambathini & Impendle municipalities Beneficiary is eThekwini	Total Project Cost for Infrastructure Component: R3,670,963,000 (subject to review). Budget (subject to review): 2015/2016 - R700,000 2017/2018 - R10,000,000 2018/2019 - R10,000,000 Cashflows Beyond 5 Years 2019/2020 - 2028/2029 - R3,645,000,000	2013-2029
251 Raw Water Pipeline: Midmar Dam to Midmar WTP	Regional WTP therefore entire PMB-Durban region benefits.	Total Project Cost: R131,185,000 (subject to review). Budget (subject to review): 2015/2016 – R39,872,000 2016/2017 – R59,186,000 2017/2018 - R6,504	2013-2016
Midmar WTP Upgrade	Regional WTP therefore entire PMB-Durban region benefits.	Total Project Cost: R214,847,000 (subject to review). Budget (subject to review): 2015/2016 –	2013-2017

		R60,603,000 2016/2017 – R71,990000 2017/2018 – R69,745,000	
61 Pipeline: Richmond Off-Take to Umlaas Road	Regional link and therefore entire PMB-Durban region benefits	Project completed	Project completed
Nungwane Raw Water Aqueduct	Wards 67,96 & 98 Ward 1- vula	Total Project Cost: R80,595,000 (subject to review) Budget (subject to review): 2015/2016 - R29,127,000 2016/2017 - R40,303,000	2014-2017
Lower Mkomazi Bulk Water Supply Scheme	Ward 99	Total Project Cost: R1,142,572,000 (subject to review). Budget (subject to review): 2015/2016 - R3,250,000 2016/2017 - R5,500,000 2017/2018 - R60,000,000 2018/2019 - R127,500,000 2019/2020 - R215,000,000 2020/2021 - R357,000,000 2021/2022 - R355,000,000	2014-2022

		2022/2023 - R16,310,000	
East Coast desalination plants	Two potential sites have been identified. One, the Southern Desalination Site is near the Lovu River, in eThekwini Municipality and the second, the Northern Desalination Site is near the Tongati River.	Total Project Cost: R26,510,000 (feasibility study, subject to review). Budget (subject to review): 2015/2016 - R7,000,000	2014-2016
Umbumbulu Pump Station	Ward 100	Total Project Cost: R125,000,000 (subject to review). Budget (subject to review): 2015/2016 - R200,000 2016/2017 - R5,000,000 2017/2018 - R25,000,000 2019/2020 - R40,000,000 2020/2021 - R54,800,000	2015-2021
Upgrade of Hazelmere Reservoir No 2	Ward 61	Total Project Cost: R 28,222,000 (subject to review). Budget (subject to review): 2019/2020 - R692,000 2020/2021 - R17,912,000 2021/2022 - R9,618,000	2015-2022

ANNEXURE 4: PUBLIC PARTICIPATION AND STAKEHOLDER ENGAGEMENT PROCESS

Spatial Development Framework Consultation Process

The SDF review process is driven by the Strategic Spatial Planning Branch of the Development Planning Department. It comprises a public process and a stakeholder engagement process. The stakeholder engagement is on-going and takes place throughout the year. Table 3a below lists the various stakeholder engagement meetings and inputs that have contributed towards this SDF review process.

In addition, the DRAFT 16/17 SDF Review was placed in public libraries and Sizakhala Centres and advertised in local newspapers from 26 Feb to 26 April 2016 for public comment. A summary of the public and stakeholder comments and updates to the document can be found in Table 3b below. These comments have also been incorporated into the Final SDF document which will be submitted to ECOD, EXCO and full Council in May 2016 for final adoption prior to being submitted to the MEC for COGTA in June 2016 for final assessment.

Table 4a - SUMMARY OF SPATIAL DEVELOPMENT FRAMEWORK REVIEW 2015/2016 MEETINGS

TASK	ACTIVITY	DATE
SDF Review 2016/2017 **GIS Mapping Updates**	GIS Mapping Project Steering Committee Meetings, Project Management meetings, meeting with Sector Departments	January 2015- March 2016
Project Management	SDF Review Core Group Meetings	18 September 2015 4 November 2015 11 November 2015 28 October 2015 1 December 2015 3 March 2016 4 May 2016

Municipal Sector Consultation / Meetings	DMOSS Review and SDF update	21 August 2015 7 September 2015 27 January 2016
	LUMS & Spatial Planning (Densification Strategy)	8 September 2015
	Spatial Planning and Information Office	14 January 2016 – on going
	<u>Sector Consultation and input</u> ➢ LUMs ➢ Information Office ➢ SPLUMA office ➢ Energy Office ➢ Area Based Management ➢ Architecture ➢ Economic Development Unit ➢ Projects Office ➢ Environment Planning and Climate Protection ➢ Environmental Health ➢ Transport Authority ➢ Infrastructure Depts. (Water and Sanitation, Electricity, Parks, Engineering, Disaster Management, Coastal Engineering, Real Estate, Solid Waste, Storm Water) ➢ Finance ➢ Human Settlements	On-going engagement and annual input into the SDF
Municipal Policy and Strategy Alignment	100 Resilient Cities meetings	July 2015 to date
	City Planning Commission	quarterly
Meetings to address MEC comments	Spatial Planning, LUMs and Coastal Engineering meetings	25 November 2015 19 January 2016

	Spatial Planning and EPCPD (Environment)	24 November 2015
	Spatial Planning and LUMS	November 2015 to March 2016
	Spatial Planning, IDP and Department of Agriculture (CEDARA)	25 January 2016
	Spatial Planning, IDP, EDU and Parks Department	3 February 2016
	Spatial Planning and Disaster Management meetings	2 December 2015 14 December 2015
	Spatial Planning, Public Sector Housing and Human Settlements meeting	19 January 2016
	Presentation on MEC Comments to Acting DCM Economic Development and Planning	1 February 2016
	Presentation on MEC Comments (Agriculture) to City Manager's Operations Meeting	7 March 2016
	EPCPD meeting with KZN Ezemvelo Wildlife	17 March 2016

TASK	**ACTIVITY**	**DATE**
Provincial Consultation & Alignment	<u>Provincial Sector Consultation and Input</u> ➢ Dept of Agriculture ➢ COGTA ➢ Dube Trade Port ➢ ESKOM ➢ DWAF ➢ KZN Dept. of Economic Development	September 2015 March 2016

	➢ KZN Ezemvelo Wildlife ➢ Department of Health ➢ ILembe Municipality ➢ Ingonyama Trust ➢ KZN Dot ➢ Transnet ➢ Umgeni Water ➢ Ugu Municipality ➢ Umgungundlovu Municipality ➢ Prasa ➢ Dept. of rural development and land reform ➢ SANRAL ➢ KZN Treasury (projects)	
SPLUMA Compliance	SPLUMA Training	19 June 2015
	SPLUMA Process plan update	30 September 2015
	SPLUMA update	23 November 2015
	Panel Discussion on Cadastrally Based SDF	30 July 2015
IDP/SDF/Budget alignment	IDP/SDF/BEPP alignment bilaterals	3 September 2015 30 September 2015
	ICDG meetings (Integration Forum)	Monthly
	National Treasury Mid Term Assessment Meetings	November 2015
	COGTA / National Treasury Planning Alignment Task Team	30 May 2015 1 July 2015 30 March 2016
	COGTA and National Treasury Benchmarking Exercise Meetings	4 April 2016

		12 April 2016 14 April 2016
	IDP Forum Meetings	16 November 2015
TASK	**ACTIVITY**	**DATE**
Provincial Policy and Planning Alignment	Durban Aerotropolis Working Group	Monthly
	SIP 2 KZN Combined Focus Group and Provincial Meetings	Monthly
	SIP2 Stakeholder Meetings	Monthly
	PGDP Action Work Group (AWG)	Monthly
	N2 Corridor Study (PSC)	Monthly
	SIP2 Nodal Workshop	13 November 2015
Budget Prioritisation & Catalytic projects	Review of Catalytic Projects and Spatial Priorities	Ad hoc meetings
COGTA workshops & meetings	COGTA IDP Assessment Workshop (Final SDF 2015/2016)	19 November 2015

	COGTA Self-Assessment submission	31 March 2016
	COGTA IDP Assessment Workshop (Draft SDF 2016/2017)	11 April 2016
Urbanization Review	World Bank Urbanisation Review Research meeting – scoping of issues	13 April 2016
Urban Environment Profile	World Bank Urban Environmental Profile	Various, 1 March 2016
Council Approval Process	Submission of DRAFT SDF to EXCO / Council for noting	23 February 2016
	Presentation of Draft SDF to all Portfolio Committees of Council	March 2016 – May 2016
	Submission of Final Draft SDF to EXCO/ Council for adoption	May 2016

TASK	**ACTIVITY**	**DATE**
Public Process	Draft SDF advertised for public comment, placed in public libraries and Sizakhala Centres and on the municipal website	26 February 2016 to 26 April 2016
	Copies of Draft SDF circulated to key provincial departments (Ingonyama Trust, KZNDED, KZN DOT, KZN Ezemvelo Wildlife, KZN Cogta	26 February 2016 to 26 April 2016
	Copies of Draft SDF circulated to neighbouring municipalities for comment (Illembe, UGU, Mkhambathini)	26 February 2016 to 26 April 2016
	Presentation to OW Environmental Conservancy	25 June 2015
	IDP/Budget Public Meetings	April/ May 2016
	Presentation to Council Subcommittees	March to May 2016

Cross Border Planning	IDP Forum Meeting Vulamehlo / Dududu	5 May 2015 16 September 2015
	Meeting with Umdoni	Various
	Meeting with Illembe	24 July 2015
	Demarcation meetings	Various
	GIS Mapping SDF data capturing of neighbouring municipalities	29 July 2015 (iLembe, UGU & Vulamehlo) 22 September 2015 (Umdoni)
	Durban Aerotropolis Working Group	On-going
	SIP 2 Meetings	On-going

Table 4b **Summary of Public and Stakeholder Comments – SDF Review 2016-2017**

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
eThekwini Disaster Management Unit 7 December 2015	Acting Deputy Head: Stephan Hendrickse	New chapter introduced on Disaster Management that describes the eThekwini Disaster Management Plan and provides a summary of the High Level Disaster Risk Assessment study currently underway.	Section 2.11: Disaster Management introduced
eThekwini Cleansing and Solid Waste Department 11 January 2016	Deputy Head: John Parkin	Minor changes to landfill information with updated information provided on Lovu, the closure of Bisasar and the rehabilitation of Bulbul landfill site.	Updates made to Section 2.9.3: Solid Waste
eThekwini Coastal, Stormwater and Catchment Management Department 13 January 2016	Senior Manager: Geoff Tooley	Introduction of the Development of a Flood Early Warning System (FEWS) study currently underway as a means of disaster management	Section 2.11: Disaster Management
eThekwini Engineering Unit, Coastal Policy 19 January 2016	Project Executive: Dr Andrew Mather	Summary of Sea Level Rise projections; 300mm, 600mm and 1000mm above HWM scenarios, used as a tool in coastal management and applied to prevent potential disaster	Section 2.11: Disaster Management
eThekwini Coastal Policy& Coastal Management	Project Executive: Dr Andrew Mather	Annexure 11 has been introduced to supplement Section 2.2.7. Coastal Planning and Coastal Management. The Annexure provides detailed	Annexure 11: Coastal Planning and Management

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
15 December 2015 eThekwini Coastal, Stormwater and Catchment Management Department 21 January 2016 eThekwini Coastal Policy and Plans: Strategic Spatial Planning Branch Development Planning Department, 29 January 2016	Chief Civil Engineer: Joe Brahmin Senior Professional Planners:Marcus Govender& Neela Naidoo Senior Technical Planner:Fazal Ebrahim	summaries of coastal planning and management initiatives that have been undertaken or are currently underway. 1. Introduction to Coastal Planning and Management in eThekwini Municipality. 2.Summary of Coastal Challenges. 3. Background to Coastal Planning. 4. Summary of Coastal Tourism Development Plan that covers the entire municipal coastline. 5. Summaries of Local Area Plans and Coastal Management Plans namely Ohlanga Tongati Local Area Plan and Coastal Management Plan, Umhlanga Node Precinct Plan, Isipingo Local Area Plan (Draft), Inner City Local Area Plan and Regeneration Strategy (Draft), Amanzimtoti CBD Nodal Regeneration Plan and the Umkhomazi Local Area Plan. 6. Introduction and background to Coastal Management. 7. Summary of Coastal Management Strategy 8. Summary of Development Guidelinesand Tools for Coastal Areas. 9. Introduction to the Rationalisation of Coastal	

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		Access Points study underway.	
eThekwini Disaster Management Unit 21 January 2016	Acting Deputy Head: Stephan Hendrickse	Summary of the High Level Disaster Risk Assessment study currently underway.	Section 2.11 : Disaster Management
KZN Transport Department 29 January 2016	Strategic Policy and Planning: Patrick Dorkin	The KwaZulu-Natal Department of Transport has requested Royal HaskoningDHV (PTY) Ltd to undertake a high level assessment of transport infrastructure requirements for the North Coast Urban Corridor (NCUC) that is the area between Umhlanga and Shakaskraal which falls within the Municipality's North Planning Region The assessment has considered transport infrastructure requirements to approximately 2050. The focus of this North Coast Urban Corridor assessment has been to review mobility routes within and through the assessment area, as well as the connectivity between the transport routes in respect of both road and rail. A summary of the comments provided by the KwaZulu- Natal Department of Transport is provided below in light of the NCUC. Reference to Paragraph 6.3 on Page 161: The North Urban Development Corridor study	KZN DoT's comments are noted. Most if not all of the studies done in this area have been done in collaboration with KZN-DOT and the relevant Units in the City. The strategic road network elements identified have been conducted in terms of proper technical processes and have therefore been included in the SDF. Transport projects that have not been evaluated through a vigorous technical process have not been included in the SDF. There are a number of transport projects that are either notional or in concept form with very little substantiation from a demand perspective and these cannot be included in the SDF until the full evaluation process has been concluded and agreed to.

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		proposes a major shift from private transport to good quality public transport. The topography in the municipality makes road based public transport more viable. Routes based on other modes such as rail is limited. It is therefore important for roads to be classified such that they allow for mobility and accessibility. Presently national and regional routes within the municipality are congested with commuter traffic and a grid design and public transport is required for urban mobility. Planning of alignments and road reserves need to be finalised. Planning should include the reduction of travel time. Additional transport routes should be considered for commuter travel at critical national and regional routes. Planned developments in the southern basin will require additional mobility routes. The proposed heavy haul route will need to be supplemented by an upgrade and additional lanes or carriageways. Reference to Paragraph 6.3. 2 on Page 163: Northern Planning Region: Arterial Roads	

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		Requirements and Standards. 1. North – South Mobility: The provision of transport routes for mobility in the north-south direction is a priority with the Durban Central business district, port on the southern side and the Dube TradePort / King Shaka International Airport and Port of Richards Bay that generates freight and passenger demand. The P398 (M4), N2 and P2 arterial roads and the north coast rail network will continue to form part of the network into the future with further infrastructure being added to accommodate further development. In the south of the area, major sections are becoming severely congested with commuter traffic with sections effectively functioning as urban streets which impacts negatively on mobility and safety. Retrofitting and upgrading of corridors is necessary. Additional collector and access roads networks are needed to cater for local traffic and pedestrian activity. Even with planned arterials and public transport congestion is still expected in the north-south direction.	

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		2. Verulam-Cornubia Area: The following improvements are proposed; Improvements to increase mobility on N2 for long distance traffic. The P94/P2 Umhlanga to Tongaat Western By-pass should be limited to interchanges only with at-grade intersections converted to interchanges or underpasses and overpasses. The Fire Station planned within the P93/P96/P2 interchange should be halted immediately as P2 has been upgraded to a dual carriageway facility. The M4 inclusive of P398 should only have grade separated accesses between Umhlanga and the Tongaat River. Between P2 and the N2 there should ideally be 2 or 3 Class U3 arterials. Should only the C8 be available in combination with the parallel BRT or rail route, then the C8 road will need to provide mobility for large traffic volumes. Multiple traffic lanes will be required with strict control of intersection spacing. The Class 4 roads in the corridor between P2 and N2 will also require upgrading to increase traffic capacity. The acquisition and registration of a reserve width of 100 metres to serve both the road and Bus Rapid	

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		Transport infrastructure is supported. 3. Tongaat Dube Area: In the vicinity of Tongaat the western and eastern bypasses are proposed. .The Western by-pass should be restricted to grade separated interchanges only. It is not feasible to upgrade the P2-2 to an arterial standard. Re-routing of the M4 to be closer to the N2 can be considered and should follow a consultative process. Funding of the re-routing of the M4 will be the responsibility of developers. 4. East – West Arterial Road Needs. These are underdeveloped and there is a need to identify and upgrade east-west routes. Existing roads will need upgrading to arterial standards. East-West Links to Inland Areas Arterial routes to inland areas and economic hubs are important for mobility needs. The N3 has insufficient capacity and as the major connector between the inland hubs increases the	

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		traffic volumes on the north-south arterials. There is a strong desire line for a new Class 1 Principle Arterial from the N3 near Pietermaritzburg to King Shaka International Airport or Tongaat / Ballito area. This will be required in the longer term. The P25 cannot function as a viable alternative to the N3 and N2 route between Pietermaritzburg and Tongaat as it increases travel distance and the average speeds are lower due to design. Traffic from Wartburg and Greytown would use this route to King Shaka International Airport. The Umgeni Valley Link (UVL) can function as part of an east-west link between the N3 at Assegai and Umhlanga but will provide only limited relief for the N3 due to the non-direct linkage to the N3 and the urbanised nature of the road through Hillcrest and Waterfall.	
eThekwini Transport Authority 4 April 2016	Transportation Engineer: Lavern Moodley Transport Economist: Paul	Updates provided on the movement network system, improving accessibility, restructuring of the public transport system and updates on the Integrated Freight and Logistics Strategic Framework and Action Plan that has been developed.	Updates to Section 2.5 The Movement Network System, Section 2.5.1 Public Transport System, Section 2.5.2 Freight Transport System & 6.3. New Section 2.5.4 Maritime Transport Updates to Section 6.3

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
26 April 2016	Sessions Transportation Engineer: Lavern Moodley Transport Economist: Paul Sessions	A Section on Maritime Transport has been introduced. The public transport system, GO! Durban, as a means of improving accessibility is introduced into the section. Updates to proposed transport linkages provided. Updates to Figure 47: IRPTN Trunk Route Phasing Plan in Section 6.3.5. Updates provided on plan and phasing information.	Section 6.3.2 Updated plan and phasing inserted as Figure 72 in Section 6.3.5
eThekwini Electricity 11 April 2015	Chief Engineer, HV Planning: Vasu Chetty	Updates provided on the status of electricity supply; no backlogs, electricity generation at Bisasar Road and Mariannhill land fill sites. The load forecast graph updated as well as the existing and future supply map.	Updates to Sections 2.9.4, Electricity. Other sections updated; Section 2.2.4.2 Central Spatial Planning Region, Section 2.6 Overview of eThekwini Economy and Section 8.5.1 Service Delivery
eThekwini Energy Office	International Energy Transactions	Updates provided on climate change and energy	Updates throughout document

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
29 January 2016	Advisor:Dr. Susanna Godehart		
PRASA, Strategic Network Planning 3 February 2016	Sonitha Pooran	Updates provided. New information and map provided on South Coast Rail Corridor Stations Feasibility Study which looked at the feasibility of 3 new rail stations. New information and map provided on KZN Northern Rail Linkages Study that looks at a conceptual rail link between Durban, Umhlanga and King Shaka International Airport. Suggestion to include “public transport link to King Shaka International Airport” to the city’s catalytic projectslist.	The SDF has been updated with the revised information The suggestion on catalytic projects has not been added as this project has not been identified by the city as a catalytic project at this stage.
eThekwini Water and Sanitation Unit 4 February 2016	Professional Engineer : Hope Joseph	1.Clarity is needed on the duration of the SDF. If the plan is a 20 year plan, the predicted water demand, indicates that about 50-60% of development shown in the SDF will materialise in 30-40years. 2. The SDF does not indicate phasing. The SDF does not provide units with guidance on service delivery and planned roll out of services. SDF needs to incorporate ICDG projects and provide timeframes and phasing. Require a series of SDF’s that identifies development in 5-10 year	A working group will be set up to address the concerns raised: However it should be noted that the SDF although legally required to represent a 5 year period, actually shows the ultimate development proposed in the municipality up to 60 years. There are only 6 land use categories in the SDF

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		periods. 3. A study was undertaken on the 12/13 SDF for the roll out of infrastructure should be included in the SDF. 4. There is a need to standardise the land use categories from 96 to a category that can be used more uniformly in the various levels of planning. Water and Sanitation Department had rationalised the land use categories down to 16. 5. Some areas with proposed densities that warrant off-site sanitation could not be serviced by same. These areas need to be re-visited in the SDF. 6. The huge increase in development in the north or certain catchment areas has had a huge impact on the units ongoing planning. The current SDF should be compared to the 12/13 SDF which the unit used in the study and all differences should be identified and their implications understood. The Water and Sanitation Unit suggested that a working group be established to consider the concerns raised above.	(excluding DMOSS and DAMS) While phasing needs to be introduced the SDF cannot predict take up rates, these can only be estimated. Spatial Priorities are identified and have informed the catalytic projects listed in Chapter 8

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
eThekwini Land Use Management Branch, eThekwini Development Planning 4 February 2016	Manager: Claire Norton	LUMS Input: Planning Approach and Legislative context as well as Scheme updates	Section 1.2.3. Legislative Framework Section 1.3.4 Current Planning Approach in EThekwini Municipality Section 2.2.7 EThekwini Land-use Management Framework Section 8. SDF Implementation and Capital Investment Framework,Linking town Planning Schemes to SDF's
Information Systems Branch,eThekwini Development Planning Department On going	Manager: Buddy Govender	Mapping updates relating to various aspects of the SDF including • Public owned vacant land • Land Claims mapping provided by DRDLR • Mapping of Special Consents and Rezoning applications • All SDF mapping and subsidiary maps • Scheme extension areas • Areas of proposed demarcation • Urban Development Line updates • Spatial Development Concept updates • Rural Maps and Traditional Areas • Spatial Planning and Integration Zone alignment mapping • Approved and planned projects areas updates	Refer to Table of Content - List of Figures and Annexures

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
Policy, Strategy and Research Branch, eThekwini Economic Development Unit 22 January 2016	Deputy Head: Dr Ajiv Maharaj	Change Individual Monthly Income to Household Income and replace Fig. 8 and associated table with new figure and table provided. Section 2.6 Overview of eThekwini Municipality: Add the following points under Key Issues relating to the economy in eThekwini – • Urbanisation • Low Foreign Direct Investment and Business Expansion Replace Section 2.6.1 Future Economic Growth and Development with write up provided.	Individual Monthly Income changed to Household Income and Fig. 8 and associated table replaced with new figure and table provided (Sec. 2.2.1 pg. 51) Amended Key Issues relating to the economy in eThekwini to include – • Urbanisation • Low Foreign Direct Investment and Business Expansion (Sec. 2.6 pg. 106) Section 2.6.1 Future Economic Growth and Development replaced with write up provided (Sec 2.6.1 pg 106 – 122).
Biodiversity Planning Branch, Environment Planning and Climate Protection Department	Specialist Ecologist: Natasha Govender	Various updates including: • D'MOSS land ownership map • Map of formally protected areas • Clarification of D'MOSS • Vegetation types and Threats • Updates on the restoration ecology programme as part of the Ecosystems based adaptation work • Updates on the SEA approach	Section 2.3 Environmental Planning and Trends

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
9 December 2015 5 April 2016			
Strategic Spatial Planning Branch Development Planning Department	Senior Professional Planner: Devoshini Konar	• Facilitated input on Land Use Management, Guidelines and SPLUMA compliance information • Updates to scheme extension mapping and SPLUMA process plan	Chapters 1, 2 and 8
Strategic Spatial Planning Branch Development Planning Department	Senior Professional Planner: Ashena Ramloutan	• Document collating and editing • Demographic information updates and referencing • Facilitated updates on economic development • Updates to SIP process	Section 2.1; 2.6 and 2.6.1
Strategic Spatial Planning Branch Development Planning Department	Senior Manager: Helene EpsteinSenior Technical Planner: Francis Ngcobo and Lindelwa Mncwabe (intern)	• Facilitated meetings with the Department of Agriculture and Rural Development in Cedara, meetings with relevant municipal departments and senior municipal officials in response to the MEC comments to develop an • Agricultural Sector Plan. • Facilitated input on Human Settlements and new housing information in response to MEC Comments and SPLUMA compliance	

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
Strategic Spatial Planning Branch Development Planning Department	Senior Professional Planner : Emmanuel Letebele	• Facilitated updates on environmental management input in response to the MEC Comments	
Strategic Spatial Planning Branch Development Planning Department	Strategic Spatial Planning Branch (all)	• Cross boundary alignment updates& mapping	Section 2.2.5.1
Strategic Spatial Planning Branch Development Planning Department	Senior Professional Planner: Marcus Govender	• Land Ownership Mapping & Text • Traditional Areas Mapping • Update to SIP process	Section 2.2.2 Vacant Land and Land Claims
Strategic Spatial Planning Branch Development Planning Department	Senior Technical Planner: Fazal Ebrahim	• Obtained Land Claims Shapefilesand summary information of land claims process	Section 2.2.2 Vacant Land and Land Claims
Strategic Spatial Planning Branch Development Planning	Senior Manager: Helene Epstein	• Responses to MEC comments • Facilitation of sector information (Agriculture, Human Settlements, BEPP , Finance, SPLUMA compliance etc) • On-going Inter-Governmental Relations	Refer to Chapter 1- 8& Annexures 3a and 3 b and SDF

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
Department		• Updates to Chapters 1-8 • Updates Summary of Meetings schedule • Update Summary of Comments and Response schedule • Revised Mapping of SDF / • New mapping (neighbouring SDF's, Land Claims, Land Ownership, subsidiary SDF maps) • Document Editing • New information - SPLUMA, SONA, SOPA, SDG's etc)	
Strategic Spatial Planning Branch Development Planning Department	Regional Coordinator: Nelisiwe Mngadi	Updates to the Rural Development Strategy Editing of new information Facilitated meetings in response to MEC comments	Section 2.2.4
Strategic Spatial Planning Branch Development Planning Department 14 January 2016	Senior Prof. Planner Neela Naidoo	Summary of Disaster Management Act Summary of NEMA: Integrated Coastal Management Act	Inserted into Annexure 1: Summary of National and Provincial Policies and Legislation
Development Planning Department	Deputy Head: Lihle Phewa	Update to SPLUMA implementation readiness and compliance schedule	Annexure 5
Strategic Spatial Planning Branch	Senior Prof. Planner	Updates on infill, urban renewal and Densification in response to the MEC comments including the	6.2.2 Infill Urban Renewal and Densification

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
Development Planning Department 29 March 2016	Elizabeth Dubbeld	manner in which the municipality has identified these areas and clarity where infill, urban renewal and densification is promoted	
Capital Budget, Corporate Accounts Finance Department 25 April 2016	Senior Manager: Ms Zama Cele	Update and Revision to Chapter 8 in line with the Draft eThekwini Budget	Chapter 8 – Section 8.4.1
Planning and Research Branch, Human Settlements Department 26 April 2016	Senior Manager: Faizal Seedat and Anton Aiello (Consultant)	Update to Human Settlement information in compliance with SPLUMA requirements and MEC comments	Chapter 2 – Section 2.7
Tongaat Hulett Development (THD) 26 April 2016	Kate Ralfe	• THD note that the SDF is a key strategic and enabling framework to facilitate growth and development. It is not intended as a detailed, site specific master plan and should not be used for site specific decision making. Document acknowledges this and THD suggest the wording be added to the Spatial Plan as well. • Concern is raised by THD on the role of the SDF in land use management (as per SPLUMA and proposed by-laws) • The SDF document needs to make specific reference to section 22(2) of SPLUMA which says that the Local Authority can depart from the SDF,	• The SDF provides the overarching framework which is detailed in lower order plans. All Council approved plans are used to guide land development decisions and reference is made in the SDF to all these plans • Agree the SDF is a strategic document and should not be site specific. However, this is anticipated in SPLUMA and needs to be addressed through the national SPLUMA processes. The current eThekwini approach is to use the SDF to guide broad land uses and densities, with detail being outlined in lower order plans and schemes • Sections 22(1), 22(2) and 22(3) of SPLUMA have

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		provided that such deviation can be justified. • Supports the municipality's response to the Department of Agriculture • Social Facilities on page 145 – concern raised that there are no additional facilities planned in the north despite the new housing planned for the area. Request interaction regarding school provision to coordinate the planning and provision of facilities with the timing of the release of housing opportunities • THD recommend that a major east-west arterial linking Shongweni, Hammarsdale and Cato Ridge be considered and the connection of Molweni with the future Newlands Express way should be considered to provide much needed east west and north-south linkages. • Clarity sought on Figure 80 and if this is the dedicated freight route. • SDF should indicate the timing and commitment to the delivery of the road infrastructure in the north (Western and Eastern Arterials) shown on the SDF • Request for IRPTN C7 be extended to Ntshongweni • Requests that the infrastructure plan being developed for the city balances the need to address backlogs with the need to release new areas for development. • In addition to the SDF/ BEPP Budget alignment, THD requests greater reference to other planning initiatives such as the aerotropolis master plan, the Dube Tradeport SEZ expansion plans, the SIP2	been inserted under Section 1.2 of the SDF as requested. • Note that the City intends to develop an agricultural strategy in response to the MEC comments raised • **East-west linkages** in the vicinity of Cato Ridge were evaluated as part of the OWCS and also by SANRAL and were not supported based on a cost-benefit analysis. Hence, additional capacity improvements on the N3 are being planned and implemented by SANRAL to meet demand in the medium to long term. The north south linkages have been identified as part of the Transport Master Plan and are programmed for 2030-2035. • Figure 70 ETA) • This is a concept at this point and subject to change with more detailed investigation. The sections of the route beyond the N2 that go all the way to Cato Ridge (Phase 2 and 3) will only be developed beyond 2035. There is a strong likelihood that Phases 2 and 3 will not be developed at all with the improvements SANRAL is making to the N3, this was the findings/recommendations from the '*Integrated Freight and Logistics Strategic Framework and Action Plan for eThekwini*'. • Timing and commitment to road infrastructure ETA) - The eastern arterial and the western bypass are programmed for 2030-2035 in terms of the Transport Master Plan • IRPTN C7(ETA) - The Public Transport evaluation of this area indicates limited demand for a trunk

SUMMARY OF PUBLIC AND STAKEHOLDER COMMENTS - SDF REVIEW 2016-2017			
SOURCE/DATE	**NAME**	**COMMENT**	**RESPONSE & DOC REFERENCE**
		and provincial corridor plans, as well as various public transport planning initiatives underway in the area between the airport and the CBD. • SDF should provide clarity, guidance and confidence that facilitates appropriate to new growth and development, will be provided.	route service. The area would be served by a feeder network to the trunk. • Public Transport between airport and CBD ETA - As part of the GO!Durban (IRPTN), the C8 has identified for this purpose. All other initiatives are conceptual at this stage. • Noted, this requires strong leadership and long term commitment to the implementation of the IDP & SDF • Meetings to discuss the above will be welcome.
Strategic Spatial Planning Branch Development Planning Department. 26 April 2016	Manager: Helene Epstein, Senior Prof. Planner: Neela Naidoo, Principal Clerk: Siauree Dehal	• Adverts and Circulation of document for stakeholder input and public comment • Presentations to Portfolio Committee's, Operations Meetings • Attendance at Budget Hearings • Summary of Comments, Inputs and Response	Annexure 3

ANNEXURE 5: SPLUMA PROCESS PLAN

DEPARTMENTAL SPLUMA PROCESS PLAN AS AT JANUARY 2016

TASK	ACTION REQUIRED	STATUS	TIME FRAME
A] DELEGATIONS	1.A set of SPLUMA delegations must be drafted, approved by Council and thereafter gazetted	1. Set of delegations in line with SPLUMA Regulations in place.	a) Council adoption : April 2015 b) Gazette : May 2015
	2. The existing PDA delegations must be reviewed in line with SPLUMA and be adopted afresh. **Note** : this set of delegations will be read in-conjunction with possible new work flow processes	2. Existing PDA and SPLUMA delegations will be reviewed on adoption of the Planning Bylaw currently being prepared. **Note** : The PDA may be reviewed in alignment with SPLUMA or be repealed. Directives in this regard will be given by the MEC KZNDcogta	May 2016
B] MUNICIPAL PLANNING TRIBUNAL	1. Terms of Reference for the MPT must be drafted and adopted.	1. Terms of Reference for the Tribunal in place and will be reinforced in the Planning Bylaw currently being finalised.	1. May 2015
	2. Structure and budget for the MPT must be finalised.	2. MPT cost centre created in the operating budget and will be institutionalised on adoption of the 2016/17 budget.	2. May 2016
	3. Members of the Tribunal must be appointed	3. Appointment of the Tribunal members complete and published in the government gazette.	3. September 2015

C] APPEAL AUTHORITY	An Appeal Authority must be constituted in terms of SPLUMA. The Municipality has the option of establishing the AA internally or constitute and external independent body. Decision on a preferred option must be made soonest.	The pending Constitutional Court judgement regarding the constitutionality of S45 of the PDA has delayed the finalisation of appeal structure(s). This was argued in Court in November 2015 and judgement was reserved. Nevertheless, a process for the appointment of an external Appeals body was initiated in May 2015 and nominations received. A decision must be processed through Council on the preferred appeal mechanism.	March 2015 March 2016
D] TARIFFS	Tariffs will have to be adopted for implementation effective 1st July.	Proposed 16/17 schedule of Tariffs already considered by Council in December 2015 and final schedule will be adopted together with the Council's 16/17 budget.	May 2016
E] WORK FLOW PROCESSES AND STANDARD OPERATING PROCEDURES	1. Current PDA workflow processes must be reviewed in line with SPLUMA. 2. Current SOP'S must be reviewed and re-worked were necessary.	1. Design of new SPLUMA workflow process complete and partially implemented. Full implementation will happen on adoption of the Planning bylaw. 2. New SOP's have been prepared for implementation on adoption of the Planning Bylaw.	May 2016 May 2016
F] COMMUNICATION/AWARENESS AND TRAINING: Councillors, Developers, Ordinary citizens, Staff	Awareness re: SPLUMA must be created and necessary training undertaken.	1. Councillor workshop conducted. 2. Presentations to internal staff 3. Presentation to the built environment industry practitioners	May 2015 May/June 2015 June 2015

G] PREPARATION OF SPLUMA COMPLIANT SDF	SPLUMA compliant SDF 17/18 The current methodology and approach will have to change.	Work in this regard commenced as part of the 15/16 IDP and SDF review. Additional components to SDF identified and addressed where possible however it must be noted that there are policy and data gaps at a national level (eg there is no inclusionary housing policy) and at a municipal level. Steps are being taken to address these gaps at a municipal level but will impact on ability to achieve full SPLUMA compliance. Public process to follow SPLUMA requirements but this does lead to non-alignment with the IDP and Budget process. .	May 2017
H] PARTICIPATION OF TRADITIONAL AUTHORITIES	SPLUMA requires that Traditional Authorities participate in the decision making process on applications affecting their areas. A mechanism must be in place for this to be achieved.	Institutional mechanism already in place for the participation of traditional leaders in Council business. This arrangement has not been extended to include SPLUMA requirements as an objection against the implementation of SPLUMA was lodged by the National House of Traditional Leaders. This matter is still being addressed by the Minister of Rural Development and Land Reform.	On hold
I] PLANNING BYLAW FOR ETHEKWINI	The Constitution of South Africa empowers Municipalities to prepare Bylaws for carrying out of their functions.	The Draft Bylaw is currently being prepared and will be finalised in due course. The public process on the Bylaw was completed in July 2015.	May 2016
J] JOB DESCRIPTIONS	Job Descriptions for Planning staff must be reviewed in line with SPLUMA	This exercise has been put on hold pending the finalisation of the Planning Bylaw. It must be noted that this will also be affected by the TASK Job Evaluation exercise currently being rolled out in the municipality.	On Hold

ANNEXURE 6: SPATIAL DEVELOPMENT PLANS

SPATIAL DEVELOPMENT PLANS

Spatial Development Plans are undertaken annually for each spatial planning region identified in the municipal area, namely the Central, North, South and Outer West Spatial Planning Regions. These are informed by the SDF and provide greater detail about future spatial planning and land use, environment, transport and infrastructure interventions required at a regional level and might be considered equivalent in nature to a Regional Spatial Development Framework. Although summary details are provided about the SDP's in this Annexure, this SDF should be read in conjunction with all lower order plans (SDP', LAP's FAP's and Schemes which accompany this SDF) as they reflect and carry though the spatial and non-spatial planning intentions of the IDP and SDF to increasing levels of detail culminating in detailed Land Use Guidelines and Draft Schemes.

The information used to prepare the SDP's was sourced from various reports, studies, research processes, municipal & national policies. In addition, there has been extensive engagement with key municipal sectors (particularly transport, water and sanitation, environment, housing and economic sectors) including a series of interdepartmental workshops and bilateral meetings, as well as engagement with provincial planning authorities and neighbouring municipalities to achieve cross boundary alignment, external stakeholder engagement and extensive, community engagement throughout the metropolitan area.

Minor revisions of the SDPs are undertaken annually between 2010-2013 while the major reviews are undertaken once every 5 years in line with the IDP review process. This provides an opportunity to re-assess the SDPs based on new information and sector studies as the information becomes available. The third minor annual review of the SDPs was conducted for the 2013/14 financial year and adopted by Council in March 2014. The focus of the revision included:

1. Changes made in alignment with the IDP 2013/14 and SDF 2013.14
2. Changes made in alignment with the key proposals in Council adopted Local Area Plans (LAPs), Special Plans and Functional Area Plans / Precinct Plans namely:
 - Adams/Folweni Local Area Plan (August 2012),
 - Nsimbini Functional Area Plan (January 2013)
 - Northern Public Transport And Land Use Corridor Study Phase 2 (May 2013)
 - Tongaat and Inyaninga Functional Area Plan and Draft Scheme (2013)\
 - City Densification Strategy (May 2013)
 - Cato Ridge Local Area Plan (May 2012)
3. Changes to ensure alignment with the IRPTN and that densities are in support of these.
4. Verification of alignment between existing land uses and spatial planning intentions
5. Ongoing stakeholder engagement, particularly to obtain alignment with private sector and neighbouring municipality planning initiatives.
6. Changes to mapping and text to reflect new/updated information including:
 - Demographic profile according to Stats SA 2011
 - Amended Land-use Mapping

- Density Mapping
- Urban Development Line and Phasing
- Approved Projects
- The Freight Route

7. A new Central SDP Concept Map to reflect the long term spatial intentions of the Central Region.
8. LAP Map reflecting the LAP detail land use and boundaries- for what and where
9. City Wide Densification Strategy
10. An ongoing engagement with the Dept of Agriculture has been sought and an internal working group in collaboration with COGTA has been established to pursue investigations around agriculture and various regulatory and spatial planning issues.
11. Information highlighting the status of the Rural Development Strategy as well as the City Densification projects currently underway
12. Updated mapping to include Passenger Rail SA (PRASA) stations and the Integrated Rapid Public Transport Network (IRPTN) and update
13. Industrial Spatial Strategy

Future SDP reviews will be informed by a number of current and planned studies. These include:

- Spatial Prioritization and Spatial Capturing of projects
- Consolidating the documents and addressing mapping defects
- Informed by further studies (eg Climate Change Impacts and Safe Operating Spaces, Strategic Environmental Assessment of the SDF and SDPs);
- Refinements to the City Wide Densification Strategy
- Rural Development Strategies
- Information highlighting the Demarcation Board's re-demarcation proposals, which if approved, will take effect in 2016
- Sustainability Indicators for Spatial Planning and Land Use Schemes
- Review of the Outer West Development Corridor Plan
- Transfer of Development Rights: Phase 2 of the Hillcrest Gillits Kloof Land Use Manangement Framework
- Mpumalanga Local Area Plan

These reviews allow for a continual strategic refinement of each Regional Spatial Development Plan. Of critical importance, is the more detailed assessment of the Phase 1 Priority areas.

PRIORITY AREAS FOR DEVELOPMENT

A number of Phase 1 Priority Areas have been identified for development in the next 5 years. An initial study has revealed that these areas require various degrees of infrastructure provision to support the development that is envisaged in the SDPs and in some cases, based on resources and budgets and the cycle of planning, designing and implementing infrastructure, may even go well beyond the envisaged short term priorities (5 years).

Accordingly, more detailed assessments of the Phase 1 Priority areas are currently underway with a view to gaining an improved understanding of the cost, timing and phasing of development across the metropolitan area:

REGION	STRATEGIC PRIORITY	REGION	STRATEGIC PRIORITY
Central SDP	Port of Durban South Durban Basin Regeneration and Redevelopment Inner City Regeneration Pinetown South Point Waterfront Cato Manor Regeneration	**South SDP**	Umlazi Illovo Umkomaas/Cragieburn Areas west of Umlazi (including parts of Folweni and Inwabi) Umgababa/Umnini Amanzimtoti
North SDP	Bridge City Canelands and Surrounds Cornubia Dube TradePort and Surrounds (Inyaninga) Redcliffe Tongaat Industrial Tongaat Residential	**Outer West SDP**	Cato Ridge Hammersdale Bartletts Hillcrest Shongweni Mpumalanga KwaXimba Inchanga Molweni Zwelibomvu uMzinyathi

Table above: eThekwini First Phase (5-10 years) Priority and Strategic Focus Areas
Source: eThekwini Municipality, Development, Planning, Environment & Management Unit
(Subject to further detailed cost investigation, phasing and servicing limitation)

There has been significant progress with refining the SDP priorities based on the following criteria:

- Establishing current development pressures.
- Establishing which sectors of the economy will make the greatest impact on job creation and regional wealth.
- Establishing upfront the availability of excess infrastructure capacity and the areas in which development opportunities can be provided in the short term while new infrastructure is being built;
- Investigating the opportunities for spatial restructuring including how the Municipality might support public transport corridors and housing densification around these corridors and reduce sprawl;
- Establishing how to spatially align the demands for infrastructure provision for housing and the 26 priorities originally identified

In addition to the above, there has been ongoing engagement with other spheres of government to support the financing and release of Phase 1 priorities.

eThekwini SDPs at a glance

The following Section provides detailed summaries of the four municipal SDPs:

CENTRAL SPATIAL DEVELOPMENT PLAN (CSDP:2013-2014)

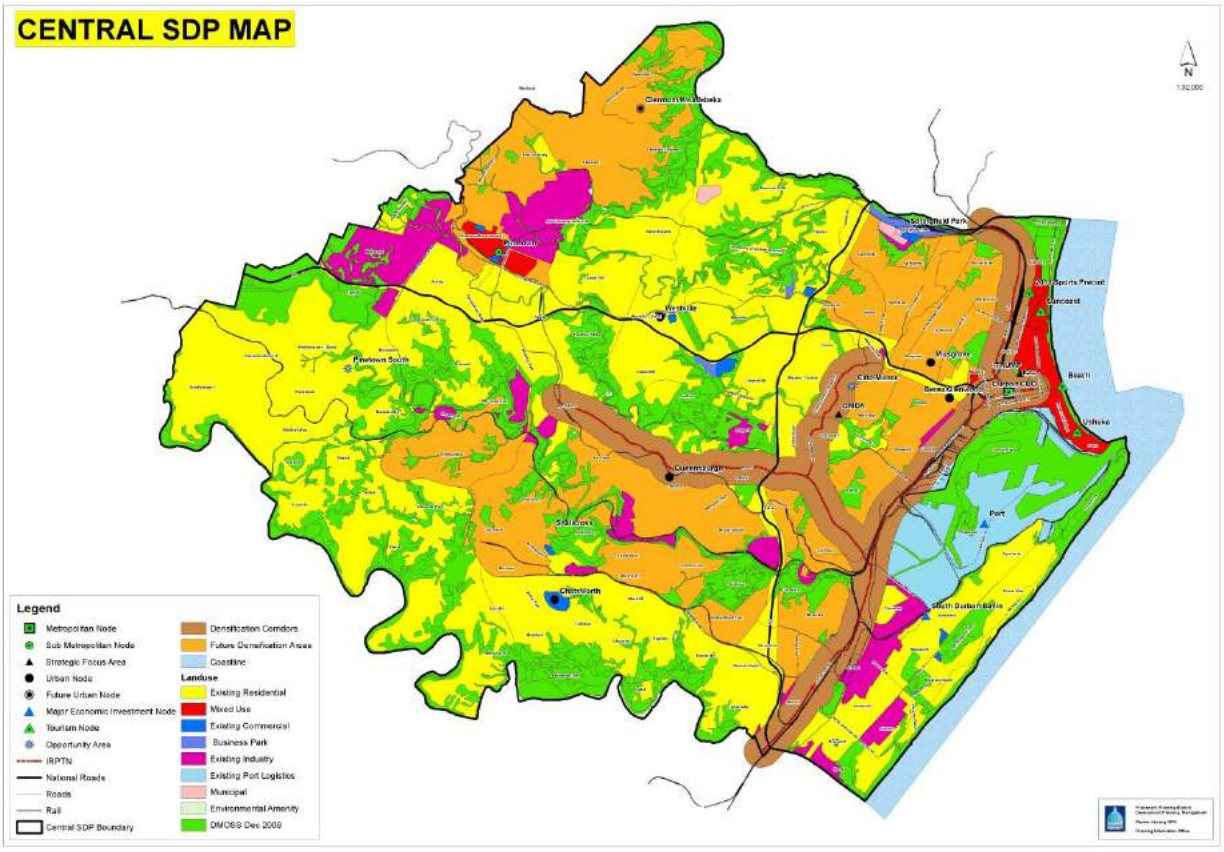


Figure: Central SDP, Map Source: eThekwini Municipality, Development, Planning, Environment & Management Unit

The Central Spatial Development Plan (CSDP) differs from other SDPs in that it is more focused as a highly developed and serviced area that is under constant change. The focus of this plan is to identify and propose standards at a broad level that tests impacts and sustainability. Large parts of the Central Spatial Region are already engaged in further detailed levels of planning that is (Local Area Plans (LAPs) and Precinct Plans that give more city-wide direction in terms of the needs, opportunities and challenges of an area such as the Back Of Port (BOP) Local Area Plan(LAP).

This region is essentially the Urban Core of the EMA and is home to approximately 1.30 million people accounting for 34% of eThekwini's total population of 3.5 million people (Stats SA, 2011). The boundaries of the Central Spatial Region (CSR) extend from the Umgeni River, in the North, along the coast through to the Umlaas Canal in the South and extend to the escarpment in the west extending over an area of 677 km^2 (67772.33 Ha). Three Area Based Management (ABM) areas fall within the CSR namely; Inner eThekwini Regeneration and Urban Management Programme (iTrump), Cato Manor Development Association (CMDA) and part of the South Durban Basin (SDB).

The Central Spatial Region contributes to 56% of the EMA's GDP and is centered on the transport and logistics activities of the Port. A substantial portion of the EMA's economic development opportunities are concentrated in the Central Spatial Region with industry, commerce and tourism being the leading sectors.

The spatial intent of the CSR is to have a mix of residential type and quality which would be characterized by high density, high amenity and ease of affordability. The “Plan” for the Central Spatial Region does not build up to a spatial concept, it was however developed through investigations of the respective functional areas and subsequent identification of regeneration projects within those areas, due to the region being alreadydeveloped.

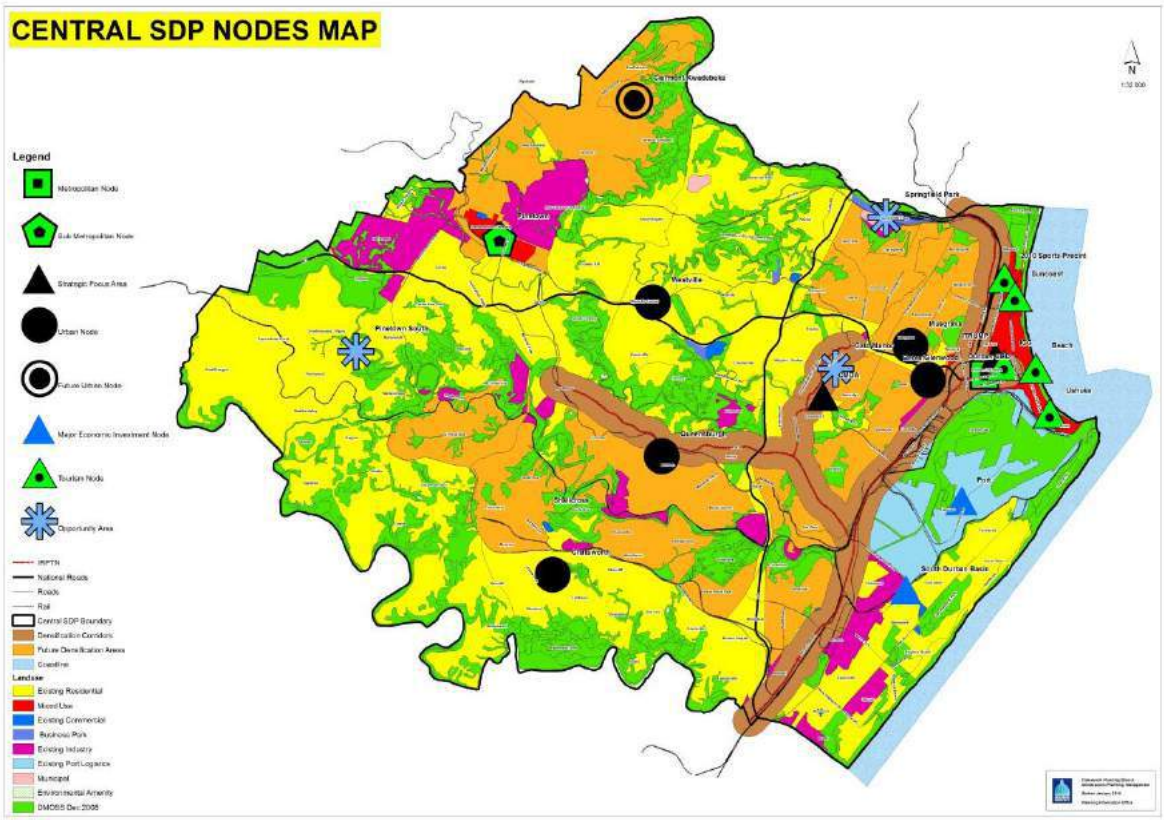
The vision for spatial development of the Central Spatial Region has been formulated in accordance with the strategic role this region serves in the wider context of eThekwini and has been underpinned by its inherent characteristics and capacities to support development. The identification of strategic spatial investment areas at a metropolitan level highlights the areas that can play an important role in promoting spatial principles.

While each of these opportunities presents its own set of issues and concerns, if the Spatial Development Plan is to have maximum impact, it needs to draw together these largely unrelated claims for attention so that they work to reinforce and support one another and are directed to achieving the aims of the metropolitan vision.

All of the areas listed below are currently covered by a range of projects and initiatives. Realising the opportunities that these areas present require that they are accommodated within the Spatial Development Plan and are linked to other spatial elements:

- Development of the new dug-out port and expansions to the existing port and supporting infrastructure to ensure that Durban continues to be the hub-port of Southern Africa
- Re-investment and new opportunities in the south Durban Basin to consolidate the manufacturing, logistics and industry will continue. Promoting tourism and mixed use development in the **inner city, the beach, sports and business and heritage areas in particular**.
- Ensuring that **Cato Manor and the Pinetown CBD** still represents an opportunity for well-located mixed-use development and the promotion of higher densities.
- Maximisation of industrial and economic potential in areas such as **Pinetown/New Germany** and **Back of Port**.
- Promotion of **densification** within the central region especially along public transport nodes and corridors.
- Regeneration of areas within the Inner City and former R293 townships such as **Cleremont/KwaDabeka, Umlazi, Inanda, Ntuzuma and KwaMashu (INK)**

In terms of balancing physical, social and economic benefits, optimising the opportunities offered by the coastal area includes the need to ensure that tourism enhances the quality of the environment and is undertaken in a sustainable manner, and that other competing uses are managed. Historically advantaged areas and infrastructure that serve the metropolitan area are major assets for the city in terms of sustaining and generating economic opportunities.


CENTRAL SDP NODES MAP
Legend
Metropolitan Node
Sub Metropolitan Node
Strategic Focus Area
Urban Node
Future Urban Node
Major Economic Investment Node
Tourism Node
Opportunity Area
IRPTN
National Roads
Roads
Rail
Central SDP Boundary
Densification Corridors
Future Densification Areas
Coastline
Landuse
Existing Residential
Mixed Use
Existing Commercial
Business Park
Existing Industry
Existing Port Logistics
Municipal
Environmental Amenity
DMOSS Dec 2008
Springfield Park
Westville
Pinetown North
Pinetown South
Durban
Umlazi
South Durban Basin

NORTHERN SPATIAL DEVELOPMENT PLAN (NSDP: 2013-2014)

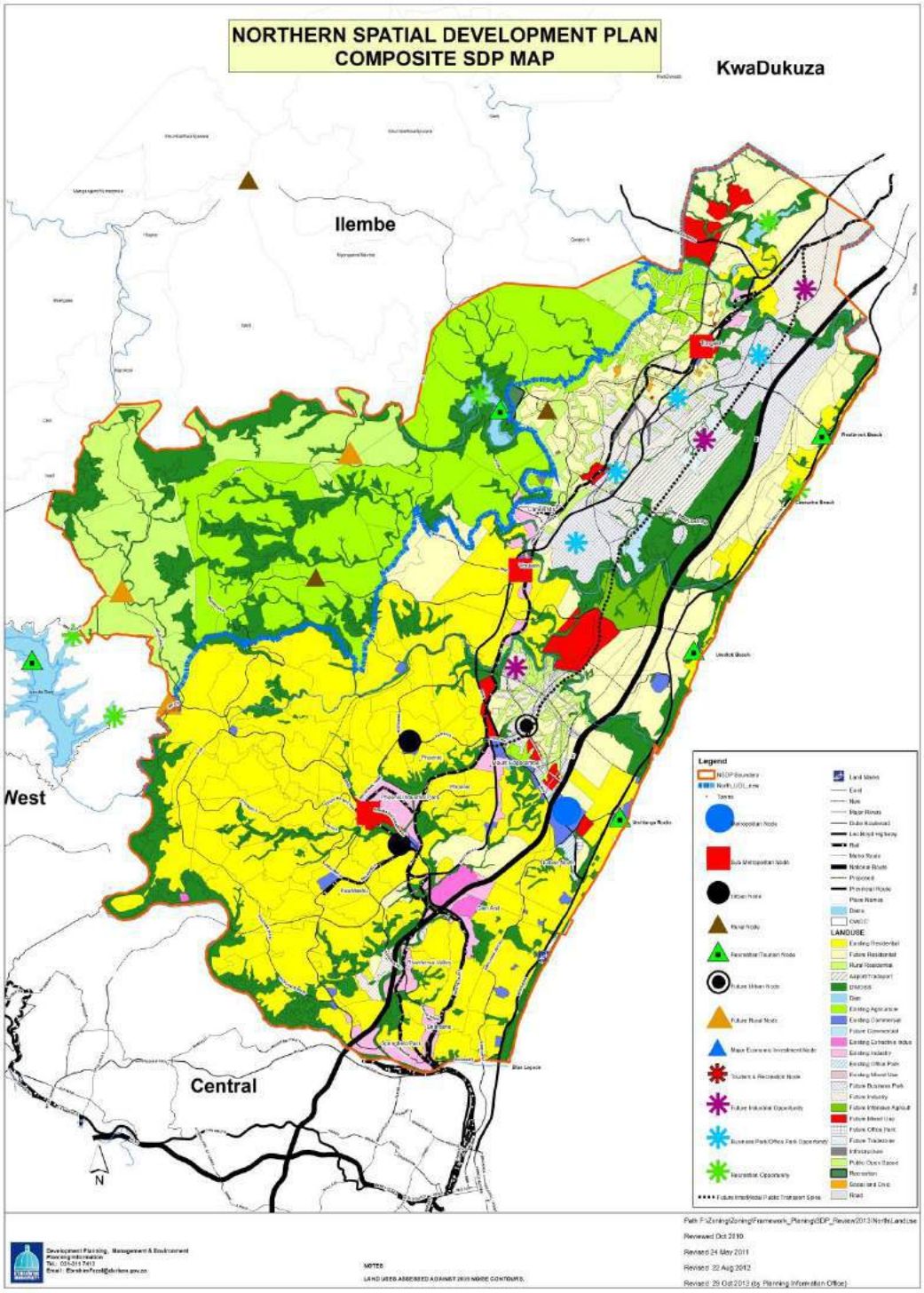


Figure : North SDP Map 13/14
Source: eThekwini Municipality, Development, Planning, Environment & Management Unit

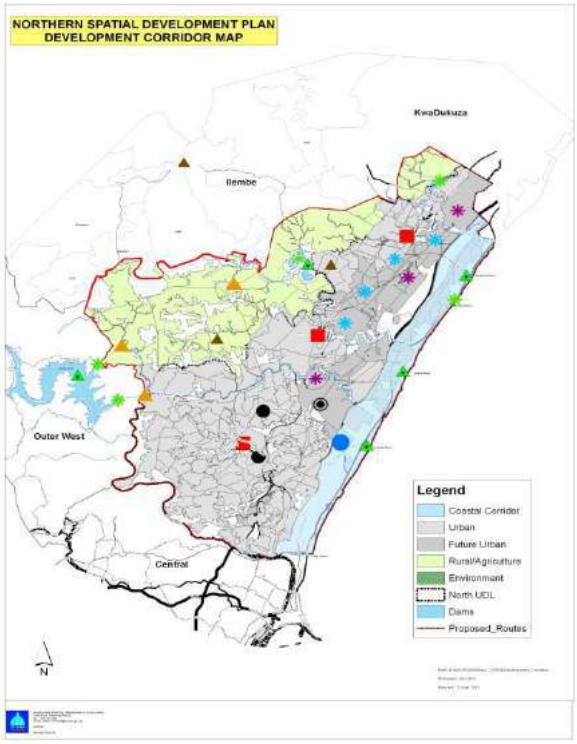
The Northern Municipal Planning Region (NMPR) boundary extends from Umgeni River in the south to Tongaat in the north with the coastline in the east and the ILembe District Municipality to the west and north. It has a population of about 1, 15 million which is 31% of the total population of 3, 5 million (Stats SA Community Survey, 2007). The population is housed in a total of 201,612 houses. The largest population concentrations are to be found at Inanda/ KwaMashu (58.6%), Phoenix (17.5%) and Durban North (7.1%).

In determining a spatial role for the NMPR it is important to note the area has environmental, social and economic linkages to the wider metropolitan area. These linkages also occur within the broader region both provincially and nationally. The following roles of the NMPR have been determined in accordance with its inherent character and capacity to support envisaged growth and development within the EMA:

- Air and landside component to logistics hub associated with new international airport
- National and international Gateway to Metropolitan area and Coastal Destinations.
- Consolidate Provincial Development Corridor between Durban and Richards Bay and surrounding municipalities
- Protection, consolidation and establishment of new well located serviced industrial opportunity areas.
- Protect denuded environmental assets to ensure eco-service delivery and to ensure tourism and recreation opportunities are not lost.

The spatial challenges of the NMPR include protection of environmental assets; prevention uncoordinated urban sprawl; protection lifestyle options; provision new major transport infrastructure; provision employment opportunities; protection agricultural assets and provision new bulk infrastructure.

Approximately 25% of the NMPR is urban, 36% is agricultural activities of which 31% is sugar cane. Industrial and commercial land uses currently only account for 2%. Development is concentrated around Durban North/La Lucia, Inanda, Ntuzuma, KwaMashu and Phoenix and around the small towns of Verulam and Tongaat. 84% of the land is under freehold ownership. Sugar cane land is under pressure for conversion to residential and/or commercial and industrial development.



At the sub metropolitan level the NMPR consists of three discrete land use corridors i.e. rural, urban and coastal corridors, all running parallel to the coast. The roles of the corridors are directly related to their inherent landscape, settlement and infrastructure characteristics and potential which include urban, rural and coastal characters.

The northern region has been divided into 6 Local Areas namely; Buffelsdraai, Hazelmere, Ohlanga-Tongati, Northern Suburbs & Umhlanga, Phoenix/ INK, Tongaat & Dube Tradeport, and lastly Verulam/ Cornubia. These local areas will play a role in achieving the broader growth and development objectives of the metropolitan area but will also ensure that local level needs and lifestyles are respected and met. All the LA's will be linked to each other and into the metropolitan area as a whole through the metropolitan level access, movement and linkage system.

The Northern Region is dynamic and there is a high demand for development, particularly within the urban corridor. A number of key areas are development priorities and various projects and initiatives are taking place, including:

- **King Shaka Airport** and the surrounding **Dube Tradeport** are being promoted as a key economic node, comprising of a variety of economic and transport related activities.
- A major business, retail and mixed use urban node is the **Umhlanga Town Centre/ Gateway** area
- **Bridge City**, strategically located between KwaMashu and Phoenix, brings innovative transportation, urbanism and mixed use development to a previously marginalised part of the city and actively promotes higher densities.
- As an emerging entertainment and tourism node, the **Sibaya** area plays a key role.
- To promote town centre redevelopment, the **Verulam and Tongaat CBDs and KwaMashu Town Centre** are seen as key priorities and being revamped to increase functionality within the broader Northern Urban Development Corridor.
- The new town of **Cornubia** is central in the promotion of mixed use, **densification** and integration.
- The emerging industrial and residential components of the **Inyaninga** area, west of the Airport, are seen as top city-wide development priorities.

In addition rural nodes are to be established, consolidated and enhanced as village centres to provide support to the development of the rural and agricultural hinterland, these include; Matabetule, Senzokuhle, Buffelsdraai and lastly Cottonlands.

SOUTHERN SPATIAL DEVELOPMENT PLAN (SSDP: 2013-2014)

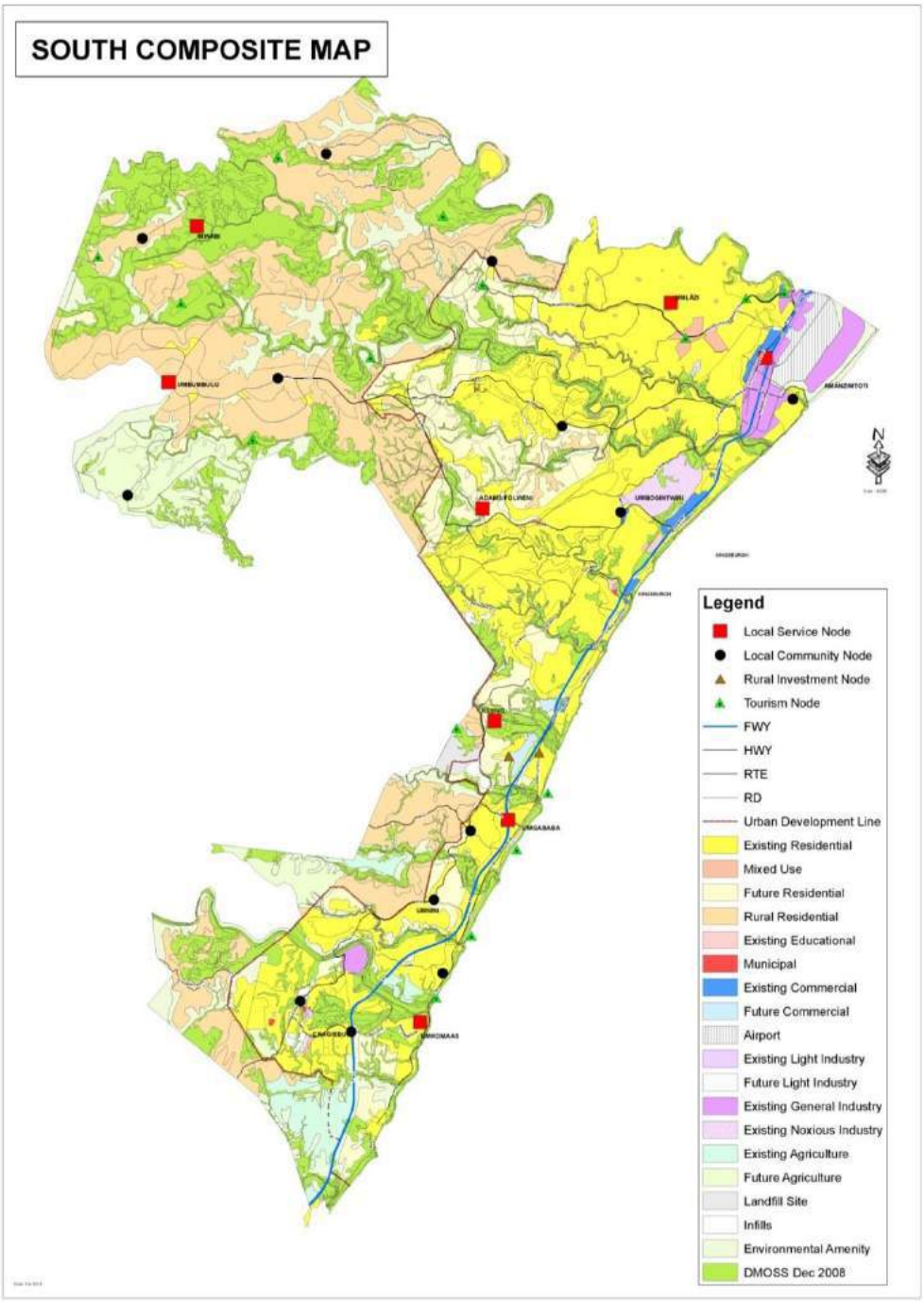


Figure: Southern SDP Composite Map
Source: eThekwini Municipality, Development, Planning, Environment & Management Unit

The South Spatial Development Plan (SSDP) identifies the capacity of the existing natural and built environment to create sustainable investment and development opportunities and establishes linkages to opportunities for the socio-economically disadvantaged communities of the south. Within this context, the SSDP identifies what development is desirable, where such development should occur and how such development should be facilitated.

The main objectives of the SSDP therefore include:

- To establish an understanding of the strategic role of the southern area within the context of the eThekwini Municipality,
- To ensure alignment of the SSDP with the development plans of the west and north as well as the South Durban Basin Framework in progress,
- To inform the broader eThekwini Spatial Development Framework as well as providing guidance for subsequent local area plans and land use schemes.

The study area of the SSDP is in extent of 510km2. In 2001, it was estimated to accommodate in the region of 730 000 people (census 2001), and the projected population for 2008 was 754 356 (based on a 1.1% growth rate). The South MPR extends from the northern boundary consisting of the Umlazi River and the Umlaas Canal to the uFudu Escarpment and the EziMbokodweni River in the north-west to the western and southern boundaries of the eThekwini Municipality. It abuts in the north onto both the central and western metropolitan planning regions. In the west the South MPR borders onto the UMgungundlovu and UGu District Municipalities.

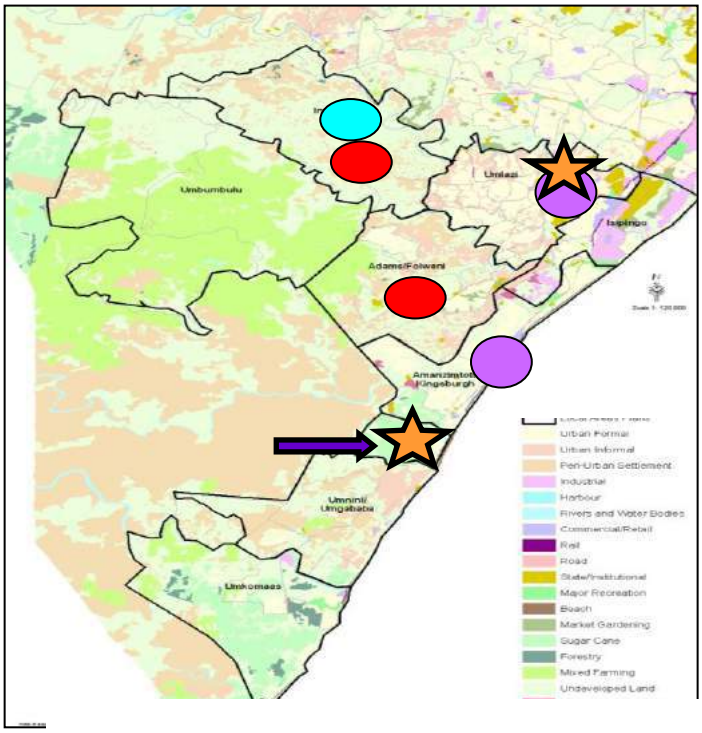
The role of the SSDP is based on achieving a balance between the following key imperatives that the Southern Region must address to achieve sustainable development for the broader Metropolitan region as well as the local region:

- Major residential role
- Industrial role with potential for limited expansion
- Coastal Tourism (existing and development of potential)
- Potential to diversify/intensify existing agricultural uses and improve food security for Metro

The conceptual approach and vision of the SSDP includes the following:

- To provide quality, variety and properly serviced residential facilities to cater for all residents of the SMPR
- To upgrade and develop existing industrial and commercial activity, while expanding and developing LED and tourism opportunities and diversifying & intensifying agriculture for the benefit of all.
- To integrate and link communities, through co-operation between traditional and non-traditional authorities, structures & communities, and the provision of social facilities for all.
- To strengthen the Metro role of the South Municipal Planning Region (SMPR), to ensure appropriate development of airport site, the creation of increased employment opportunities, and the upgrading of informal areas and market activities.
- To identify and strategize for additional appropriate industrial, business, commercial, agricultural and tourism opportunities.
- To plan for additional required residential accommodation, through infill & densification in a range of affordability levels.
- To plan for improved & appropriate accessibility throughout the SMPR.
- To ensure a protected, rehabilitated & managed natural environment.
- To ensure the improvement of living environments and the enabling of communities to take a greater part in influencing their environment.

 SSDP has identified 9 Local Planning Areas (LAPs) these include Isipingo, Umlazi, Kingsburg/ Amanzimtoti, Illovu, KwaMakhutha. Umbubulu Folweni, Umgababa/Umnini and Umkomaas. The LAPs will establish Land Use Management and regulatory instruments for the area in terms of the overall Metro LUMS approach and frameworks for specific developments to guide municipal actions and private investment.



Major development components consist of the southern portion of the South Durban Basin, the existing airport (due to become a key area for redevelopment), a range of formal residential developments (including the former township of Umlazi), a large contingent of informal residential development both within the formal development and on its periphery, and large rural areas, being substantially in the ownership of the Ingonyama Trust.

Figure :Southern SDP Nodes
Source Ethekwini Municipality, Development Planning Environment and Management Unit

The South MPR accommodates a significant part of the coastal environment of the eThekwini Municipality. While the South Coast provides some recreational and tourism activities, much of the development potential is severely underutilized.

OUTER WEST SPATIAL DEVELOPMENT PLAN (OWSDP 2013-2014)

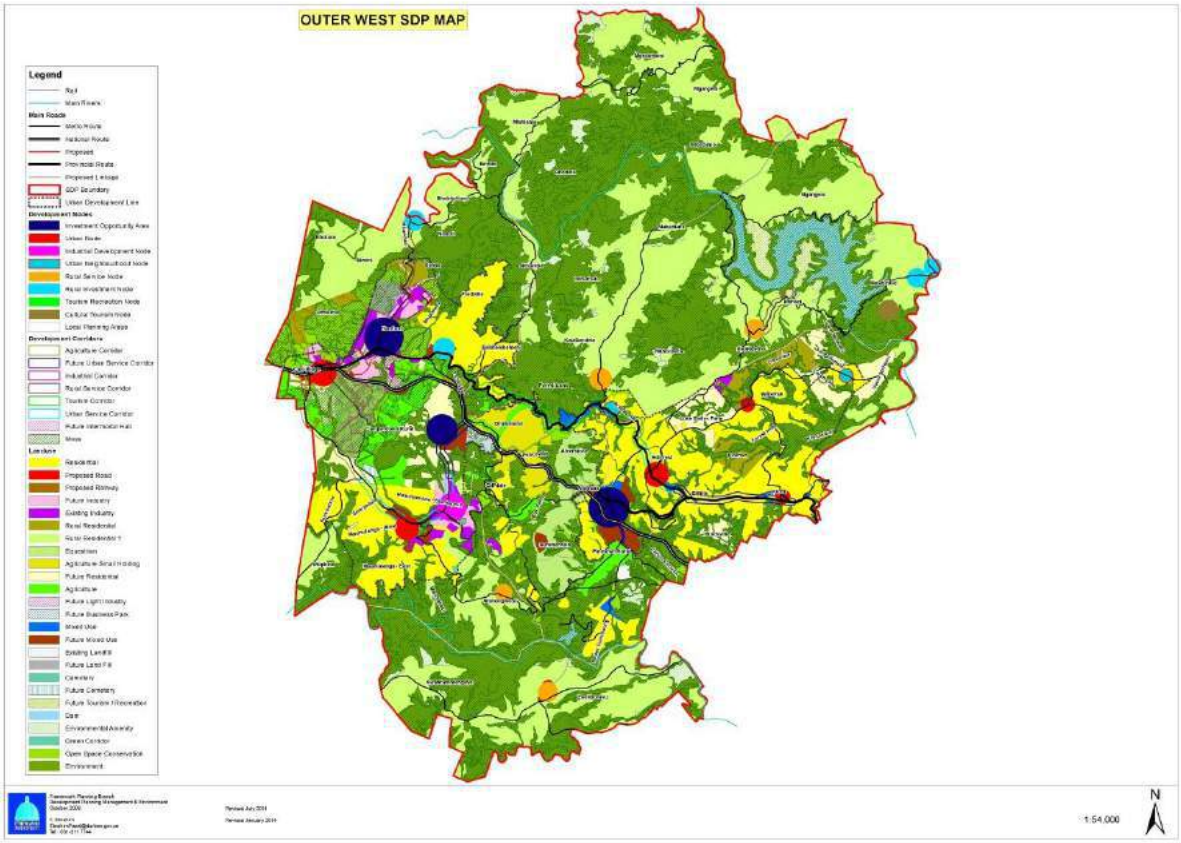


Figure: Outer West SDP Composite Map
Source: eThekwini Municipality, Development, Planning, Environment & Management Unit

The fourth OWSDP will be adopted by Council in March 2014 and builds on the need to address current challenges and unpack the long term strategic policy by translating it into a more detailed framework in terms of residential, transport, investment and environmental interventions. The purpose of the OWSDP is to promote and guide development in the Outer West to respond in a sustainable manner to the various needs and challenges facing the eThekwini Municipality as a whole. The OWSDP provides the spatial expression for short, medium and long term development of the region, which will be achieved by identifying spatial structuring elements aimed at:

- Safeguarding the environment
- Establishing investment points and lines based on local opportunity
- Establishing the urban development line to guide infrastructure provision
- Consolidating local planning areas based on inherent characteristics

The Outer West Planning Region is spatially located in the western part of the eThekwini Municipality. It measures approximately 78 438ha in extent. The area has approximately 338 024 people which constitute 10% of Ethekwini's total population of 3 442 358 (Stats SA Community Survey, 2011). The Outer West Region stretches 30km east to west from near the base of Fields Hill, to Cato Ridge and 40km from beyond Inanda Dam on the uMngeni River in the north to beyond uMlaas River in the south. Umkhambathini Local Municipality (under Umgungundlovu District Municipality) forms the

western boundary of the region. 50% of the Outer West Region is covered by traditional authorities. The region shares an urban and rural landscape with a wide range of settlements types extending from formal urban to rural settlements. Rural areas as well as the Western Suburbs have shown significant residential growth in the last few years. A major portion of metropolitan open space system (50%) which requires protection is found within this region.

The region shares an urban and rural landscape with a wide range of settlement types extending from formal urban to rural settlements. Rural areas as well as the Western Suburbs have shown significant residential growth in the last few years. Agriculture activities in the form of commercial and subsistence farming, is under threat from urban development. There are limited levels of economic development activities in the region in relation to the existing population resulting in people having to travel out of the region to access economic opportunities. The role of the OWSDP is based on achieving a balance between the following key imperatives that the Western Region must address to achieve sustainable development for the broader Metropolitan region as well as the local region:

- Priority Environmental Management Area
- Strategic Industrial Expansion
- Strategic Residential & Commercial expansion
- Key Metro International and Domestic Tourism Destination
- Settlement Upgrading

The conceptual approach of the spatial development plan includes the following:

- Establishing the N3/M13 corridor as the main economic movement system linking the Outer West to other economic centres, as well as supporting key strategic economic development.
- Protecting and managing of the natural assets of the Outer West are very important and is evidenced by the fact that DMOSS covers almost 50% of the area.
- Establishing the Urban Development Line to delineate the outer limits where urban development will be permitted in accordance with infrastructure provision and capacity. The urban development line applies to the Western Suburbs and the Cato Ridge/Mpumalanga areas. Due to historical policies certain parts of the Outer West such as Hammarsdale and Mpumalanga are more developed in terms of infrastructure services than other areas. The proposed urban development line in this context therefore applies to the east and west of the region with agriculture concentrated in the centre.
- Organising the Outer West region into six local areas, namely Western Suburbs, Shongweni, Cato Ridge, Inanda Dam, Mpumalanga and Zwelibomvu to support a range of lifestyles and develop the assets and attributes of each local area.

Corridors of development act as growth or development axes that spatially structure development. These include

- N3 Metropolitan Movement and Development Corridor
- MR385 and Old Main Road as Urban Services Corridors supporting mixed use urban activities
- R103 as main Tourism Corridors supporting tourism activities.

- Eddie Hagen supporting an Industrial Corridor

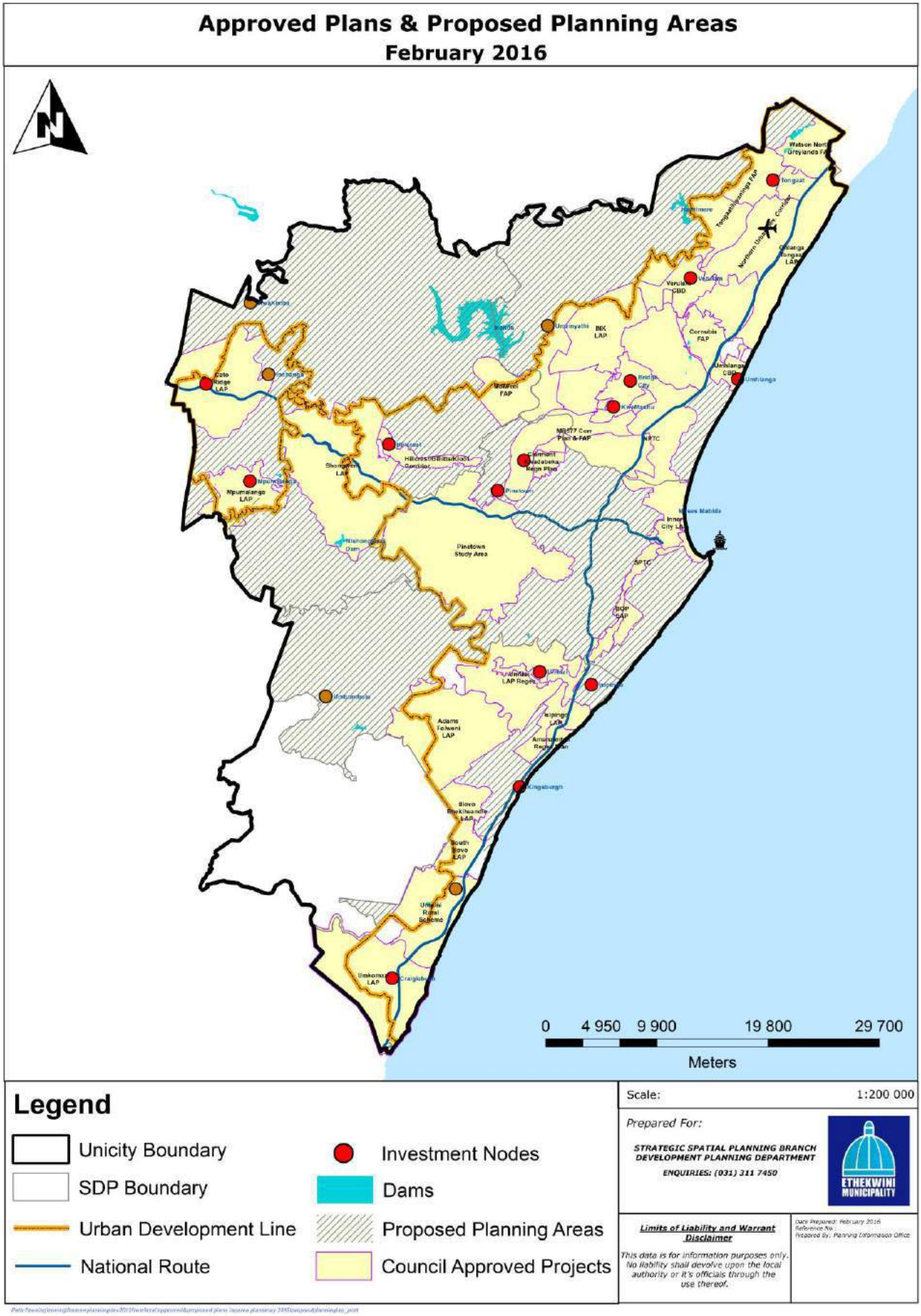


The aim of the OWSDP is to establish a movement system which not only operates in terms of improved circulation, access and linkage, but which also reinforces the social, economic and spatial importance of the movement network. Particularly as public transport routes are used for locating and structuring the provision of community facilities and economic activities. A clear hierarchy of nodes are established, consolidated and distributed throughout the OW area including, Urban nodes, Rural nodes, Tourism and Recreation nodes and new opportunity areas. These nodes will serve as investment and access points that provideconvenient and efficient access to a hierarchy of commercial, community services and facilities.

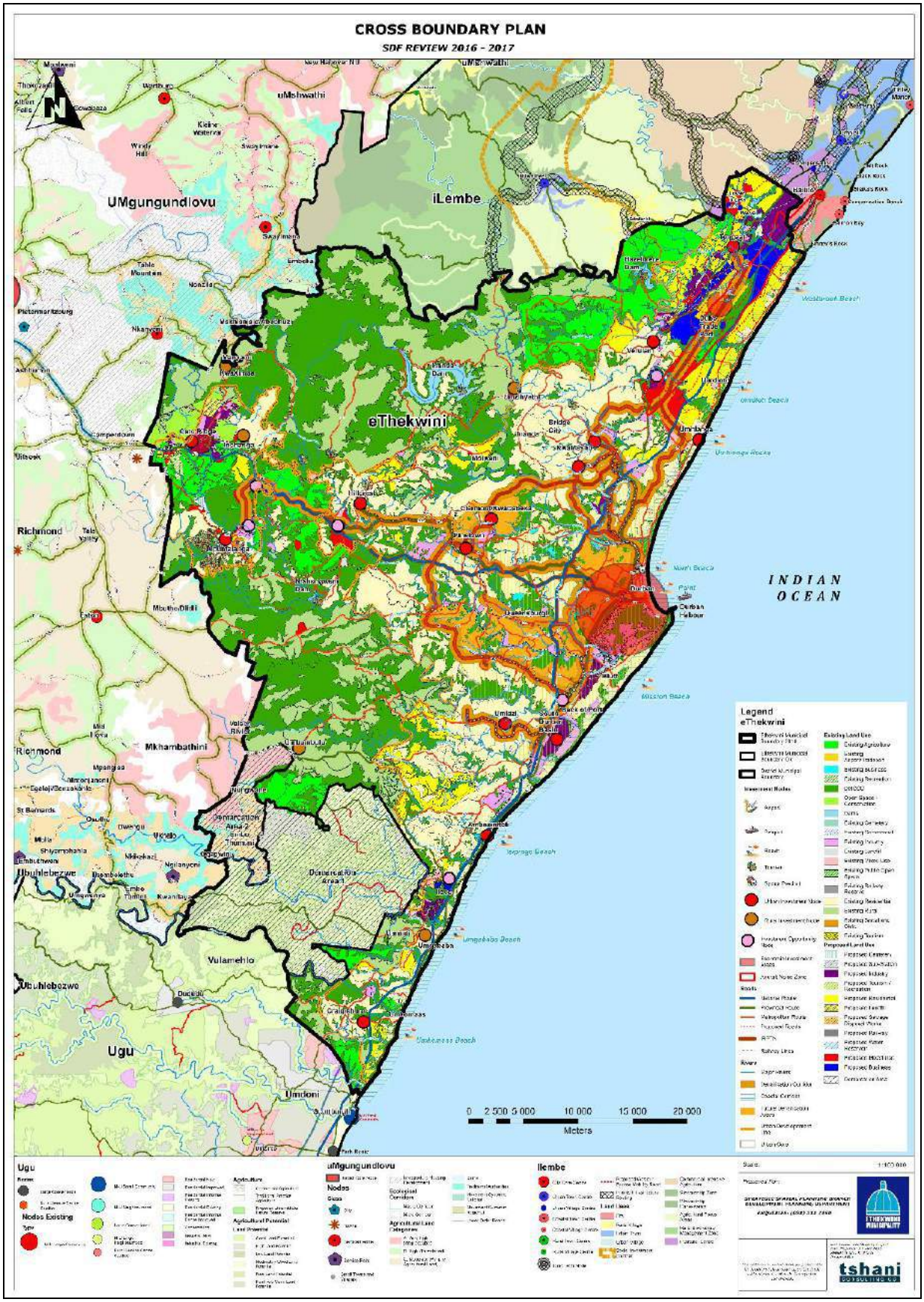
ANNEXURE 7: COUNCIL APPROVED SPATIAL PLANS

(reports available at the following web address
http://www.durban.gov.za/Resource_Centre/reports/Framework_Planning/Pages/default.aspx

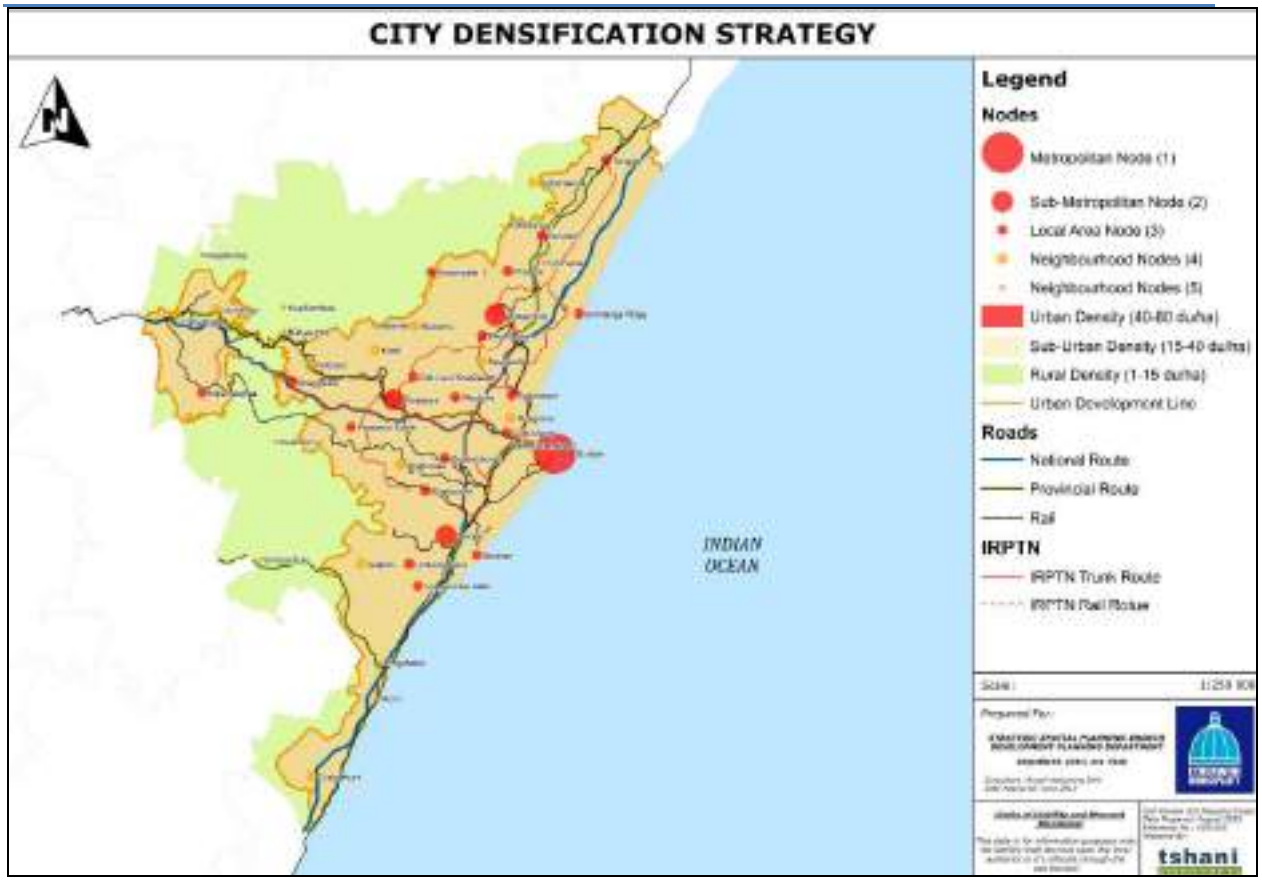
ETHEKWINI COUNCIL PLANNING PROJECTS	
PROJECTS IN PROGRESS	
SDF Review	In progress
Central Region / Inner City Local Area Plan, Functional Area Plan and Scheme	In progress
Isipingo Local Area Plan, Functional Area Plan and Scheme (including the Reunion Rezoning and property transaction process	In progress
Rural Development Strategy	In progress
Watson North Greylands & FAP Scheme	In progress
Urban Core Densification Implementation Plan	In progress
Northern Densification Corridor Pilot Projects	In progress
COUNCIL APPROVED	**DATE APPROVED**
Pinetown South LAP, Functional Area Plan and Scheme Review	November 2015
South Public Transport Corridor Study	November 2014
South Public Transport Corridor Study / PUBLIC PROCESS	In progress
KwaMashu A regeneration Plan	November 2015
Spatial Development Framework Review 2014/2015	May 2015
Illovo South LAP	March 2014
Spatial Development Plan Review 2013/2014	February 2014
Back of Port Concept, Framework Precinct Plans & Zoning reports	November 2014
Mpumalanga LAP	November 2014
South Public Transport Corridor	November 2014
Nsimbini Rural Functional Area Plan	June 2013
City Densification Strategy	June 2013
Northern Public Transport and Integrated Land Use Corridor Phase 2 (NPTC Phase 2)	May 2013
Tongaat Inyaninga Functional Area Plan and Draft Scheme	March 2013
Back of Port Interface LAP	June 2012
Molweni Nodal Precinct Plan	June 2012
Adams / Folweni LAP	June 2012
Outer West Development Corridor Study & Cato Ridge LAP	May 2012
Northern Urban Development Corridor (NUDC) including 3 LAP's (Tongaat Dube Trade Port, Verulam / Cornubia, INK/ Phoenix	March 2012
Amanzimtoti CBD Regeneration Study	October 2011
Cragieburn Precinct Plan/ Functional Area Plan	March 2011
Cornubia Framework Plan	March 2011
Umlazi Malukazi LAP and Township Regeneration Plan	February 2011
Clermont KwaDabeka Regeneration Project	February 2011
Umkomazi Local Area Plan	November 2010
Illovo Bekhulwandle LAP	October 2010
Shongweni LAP	October 2010
Hillcrest Gillits Kloof Land Use Management Plan	September 2010
Western Corridor Cross boundary Forum	July 2010
NPTC Phase 1	June 2010
Verulam CBD Precinct Plan	May 2010
Ohlanga Tongati Local Area Plan – Traffic Study	April 2010
Umhlanga Node Precinct Plan	March 2010
Pinetown CBD Node Precinct Plan	March 2010
Ohlanga Tongati Local Area Plan	March 2010
Umlazi Nodal Regeneration Study	November 2009
North, South, Outer West and Central Spatial Development Plans	November 2009
Industrial Spatial Strategy	August 2009

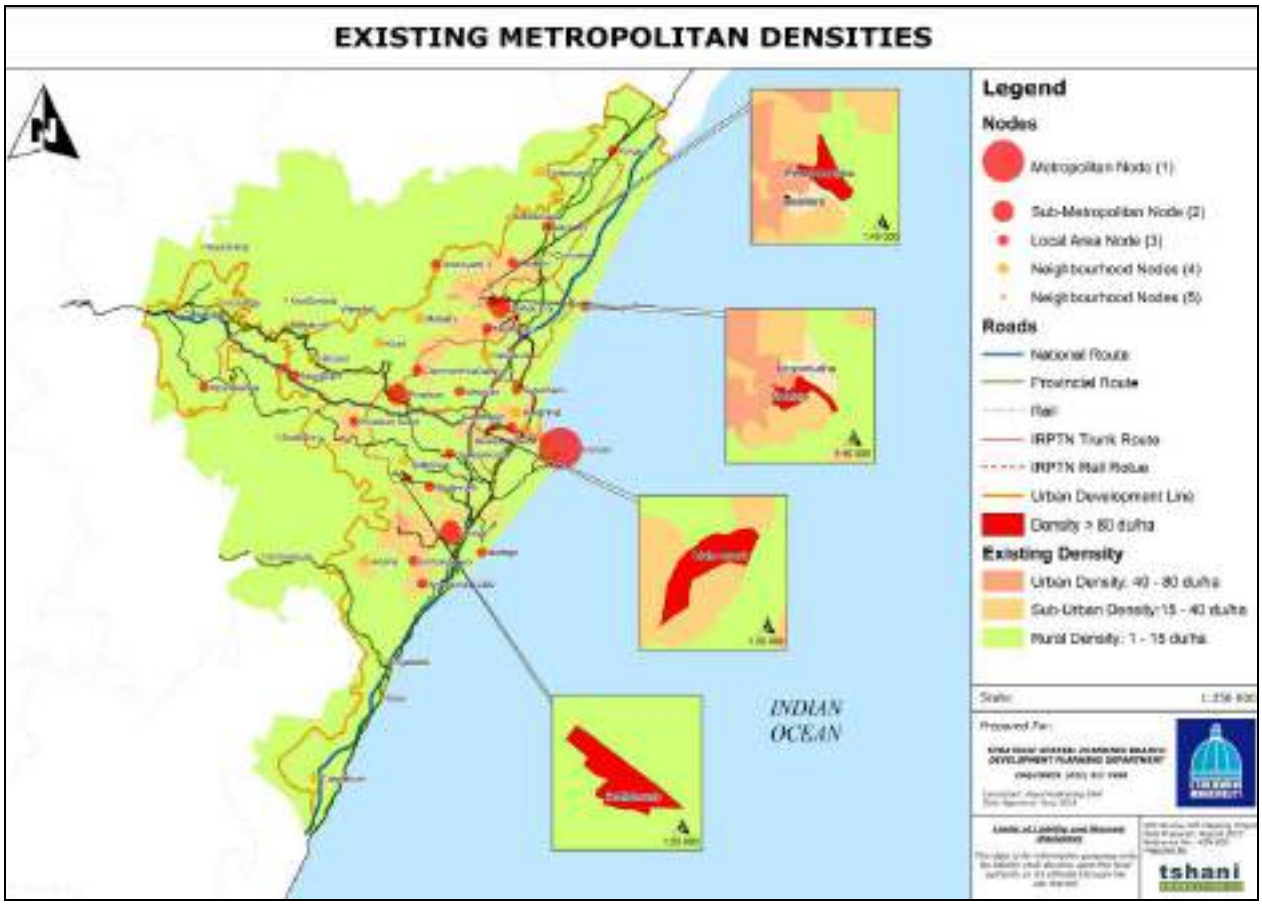

Approved Plans & Proposed Planning Areas
February 2016
0 4 950 9 900 19 800 29 700
Meters
Legend
Unicity Boundary
SDP Boundary
Urban Development Line
National Route
Investment Nodes
Dams
Proposed Planning Areas
Council Approved Projects
Scale: 1:200 000
Prepared For:
STRATEGIC SPATIAL PLANNING BRANCH
DEVELOPMENT PLANNING DEPARTMENT
ENQUIRIES: (031) 311 7450
ETHEKWINI MUNICIPALITY
Limits of Liability and Warrant Disclaimer
This data is for information purposes only. No liability shall devolve upon the local authority or it's officials through the use thereof.

ANNEXURE 8: CROSS BOUNDARY PLAN



ANNEXURE 9: CITY DENSIFICATION STRATEGY AND EXISTING METROPOLITAN DENSITIES




EXISTING METROPOLITAN DENSITIES
Legend
Nodes
Metropolitan Node (1)
Sub-Metropolitan Node (2)
Local Area Node (3)
Neighbourhood Nodes (4)
Neighbourhood Nodes (5)
Roads
National Route
Provincial Route
Rail
IRPTN Trunk Route
IRPTN Rail Relus
Urban Development Line
Density > 80 du/ha
Existing Density
Urban Density: 40 - 80 du/ha
Sub-Urban Density:15 - 40 du/ha
Rural Density: 1 - 15 du/ha
INDIAN
OCEAN
tshani

ANNEXURE 10: RESPONSE TO COGTA COMMENT ON THE FINAL SDF 2015/2016 SUBMITTED IN JUNE 2015

CRITERIA	COMMENT	RESPONSE & DOCUMENT REFERENCE
SUBMISSION OF SDF		
Full SDF included	achieved	
Strategic Mapping in IDP	Strategic Mapping quality must be improved. We acknowledge a standalone project has been initiated to improve the mapping quality.	GIS mapping project to improve quality of maps complete.
Include amendments identified by MEC	Some MEC comments have been addressed. Others have been held over until next major review in 2016/17	Outstanding MEC comments to be addressed Major review now in 17/18
Quality of maps	Strategic Mapping quality to be improved	GIS Mapping Guidelines completed. Now need to standardise all sector mapping.
LEGAL COMPLIANCE		
Promote desired direction and nature of growth	achieved	

Conservation of the natural environment.	The conservation is based on D'MOSS and environmental management plans. An Agricultural Sector Plan has not been developed and the KZN DARD Land Categories Dataset and Draft Policy Guidelines (2013 and/or 2015) have not been consulted nor incorporated into the Municipality's IDP or spatially represented in the SDF. The municipality has committed resources for development in areas identified as high agriculture potential. An Agricultural Sector Plan must be developed, in collaboration with KZN DARD, with • a vision for agriculture in the municipality, in which • high value agricultural land is identified, prioritized and protected from non-productive land uses. • The sector plan must also contain • goals; • develop guidelines for current and desired agricultural development and land use management, • optimization strategies, • value-adding opportunities and improved production systems or interventions for prioritized areas which will unleash agricultural potential. • Areas must be identified where more detailed local plans need to be developed, site-specific soil and vegetation surveys may need to be conducted for specific projects. • Strategic assessment of the agricultural resources via a full agricultural SWOT analysis must be undertaken. The municipality must provide a copy of the Agricultural Sector Plan to KZN DARD regional or local Extension office for comment and the Macro-planning component (Head Office Cedara).	• Meeting held with DARD to clarify scope and responsibility for development an Agricultural Sector Plan • DARD acknowledged that the SDF had made reference to the most recent Agricultural Land Categories and now need a strategy to protect agricultural land within the municipality as per the SPLUMA requirements • Currently identifying responsible department to take this plan forward so that all departments involved in agriculture are part of the process
Provide strategies to address informal settlements	Needs to be addressed	Will be addressed by the HS Department

Promote areas of development intensity	The manner/process in which the municipality has identified these areas needs to be further elaborated upon. Provision of more clarity regarding infill areas, urban renewal and areas where densification is promoted is required	Already refer to the City Densification Strategy and Public Transport Corridor studies. Additional detail will be provided in the report.
Urban edges and development edges	It would be useful to indicate in the document those actual areas that fall within the urban development line, in the absence of improved mapping	Addressed
Identify, quantify and locate infrastructure for the next 5 years	achieved	
Strategies, projects and programs for the development of land	Land Reform projects can be expanded upon.	Land Claims within the Municipal area have been mapped and the potential conflicts with future development are noted. Information on the status of the claims is to be provided by the DRDLR in order to evaluate their implications for future development. The Agricultural Sector Plan should also include strategies to deal with land reform.
Integration of previously disadvantaged areas	A focus on public land holdings is lacking and should be incorporated in the next SDF review	Public land holdings, excluding all environmental resources (DMOSS, Nature Reserves etc), have been mapped. Any potential investor will first need to establish the status zoning and planned use of that land and may not assumed that all land shown on this map is developable prior to following due process.
SDF take cognisance of Environmental Management Instruments adopted	The municipality indicates that a 'Safe Operating Space' study has been initiated which will provide a critical starting point for the municipality to undertake a SEA (MSA regs)	The SEA process has been revitalised and is being championed by Dr Debra Roberts. Following a meeting held in 2015 with EPCPD, Planning and DEA, all parties agreed that it would not be appropriate to initiate an EMF in place of or prior to the SEA. It was confirmed that they are two very different methodologies with very different outcomes. An SEA is not a supersized EIA and there is currently no defined methodology for an SEA.

		The city is currently workshopping an appropriate methodology for the SEA and consultants have been appointed to start this process.
Capital Investment Framework (CIF)	It provides a capital budget summary (8.5 Capital Budget Summary) for the MTEF and captures the capital projects spatially. Projects of sector departments not forthcoming	A list of provincial projects will be included in the final report. COGTA is requested to facilitate the spatial referencing of provincial / national projects and facilitate intergovernmental collaboration to achieve greater coordination and spatial alignment at all spheres of government. The IDP forum has not been very effective for achieving this. The Municipality is also looking to the National Treasury Built Environment Performance Planning process to achieve this end.
Mapping of Capital Investment Framework	Mapping can be improved	The mapping is intended to show the spatial location and clustering of projects to determine alignment between the IDP, SDF and Budget. However, detailed data does exist and has recently been updated. A CD of the data base will be provided with the SDF submission to COGTA to enable COGTA to do detailed project queries per sector.
Include a strategic assessment of the environmental pressures and opportunities within the municipal area, including the spatial location of environmental sensitivities, high potential agricultural land and coastal access strips, where	Although the SDF does not include a SEA, the municipality indicates that a 'Safe Operating Space' study will be undertaken, and will provide a critical starting point for the municipality to undertake an SEA. Section 6.1 Sustaining our Natural and Built Environment provides broad guidelines that speak to agricultural and environment conservation and development. It also indicates terrestrial ecosystems and aquatic ecosystems that need protection. The SDF also aims to manage urban growth, construct and maintain viable built environment and sustain natural environments and resources. The assessment of pressures was undertaken. No maps provided showing individual features such as vegetation, rivers, estuaries, ecosystems, etc. under pressure. No maps provided of PAs, those under formal protection and those going through stewardship. Mapping of environmental sensitivities is provided in the form of D'MOSS, which includes	Maps inserted will address the D'MOSS and stewardship concerns.

applicable?	fine scale mapping of sensitive areas. No split of what is included in D'MOSS. No identification of what is municipal land or under formal protection and what is on private land.	
Strategic assessment of environmental pressures and opportunities	No SEA was included in the SDF which was also the status of the SDF in 2013. This means that little to no progress has been made. An SEA is to be prioritised as part of the next major SDF review.	An SEA is currently being prepared and it anticipated to be completed in 2017/18
Alignment with neighbouring municipalities	Mapping can help improve alignment	District / Regional Mapping has been completed and inserted in the report
Alignment with National and Provincial policies and legislation	achieved	
Provision of Scheme guidelines / where particular land use types/ typologies are to be encouraged or discouraged?	The SDF to expand its focus on rural schemes guidelines. It is recommended that the SDF incorporates rural scheme guidelines that also reflect coastal zone management issues in addressing the various kinds of rural developments across the municipal area.	The municipality has completed only one rural scheme and that is for UMNINI. The Umgababa Coastal Plan has not been accepted by the relevant Traditional Authority. The Rural Strategy has been finalised but approval has been delayed due to critical issues that still need to be resolved. COGTA is requested to assist in addressing the issues and challenges with planning and land use management in Traditional Areas. The Report provides extensive detail on work undertaken on Coastal Planning and Management .
Public Consultation		The SDF will be advertised for 60 days as per the SPLUMA requirement noting that there is now misalignment in the IDP, SDF and Budget process.
VISION AND SPATIAL RESTRUCTURING		
Spatial Vision	achieved	

IDP & SDF Vision Alignment	achieved	
Spatial Objectives, strategies, programs in keeping with vision of the IDP	achieved	
SDF redresses the imbalances of the past	achieved	
Guide nature and location of development	achieved	
Identify structuring & restructuring elements	achieved	
Address historic spatial imbalances	Land Reform Projects not forthcoming	No land reform policy Land Claims mapped
Address the SPLUMA principles [Chapter 2(7)]	Due to the comprehensiveness of the SDF most of the aspects required by SPLUMA is addressed, although the SDF is still only partially compliant with SPLUMA. This is confirmed by the SPLUMA Process Plan which requires the 2016/17 SDF to be SPLUMA Compliant, although working towards that goal already starts during this review. The Municipality is therefore commended for developing a detailed plan to become SPLUMA Compliant,	Refer to the updated SPLUMA process plan
SDF BUDGET ALIGNMENT		
Current Status	The SDF clearly indicates alignment between the capital budget and the SDF. The Capital Investment Framework indicates capital projects represented spatially in the maps and the municipal priorities for the next 5 years whilst also linking them to the MTEF. The CIF also indicates the current projects as per key spatial priority	achieved

	areas and the budgets for these key priority areas.	
General Recommendations of this Section: Projects from sector departments are not included. Include budgets of sector departments on maps		The MTEF mapping includes municipal sector capital budgets subject to certain filters (eg only city building projects and not maintenance projects, or projects over a certain value). All budgets need to be spatially referenced and the spatial impact measured so that the spatial trends in spending can be monitored and influenced accordingly. COGTA and National Treasury to facilitate this SPLUMA requirement..

General Observations
• The submitted SDF is considered have a strong focus on the built environment or urban component. The SDF focus must now expand to include the rural component in the next review. • Coastal Management Planning to be developed and refined by way of appropriate studies and strategic measures. • The development of the SEA is to be prioritised and offer from EDTEA to undertake an EMF is to be considered as a matter of urgency. • Environment: Areas of attention in the next SDF review to include the Status Quo, action plans on remedial matters, identification of Environmental Management Zones and opportunities for development. • Map stewardship sites with conservation value • Map of land ownership in D'MOSS

SUMMARY RECOMMENDATIONS	RESPONSE
• The eThekwini SDF's focus on the built environment indicates an urban bias and is too technical in its approach. A shift to rural development is required in the next review with formalisation serving as a key priority that is to be guided by a strategic approach.	• This is currently under consideration
• The amalgamation with Vulamehlo needs attention and the spatial implications of this merger need to be represented alongside the cross-border strategies that will come into effect to make this a smooth process with Vulamehlo Municipality.	• The city awaits the Vulamehlo Profiling project being undertaken by COGTA

• Coastal Management Planning to be developed and refined by way of appropriate studies and strategic measures and the fragmented Environmental Plans that the municipality has developed need a holistic approach with clear outcome. The proposed Strategic Environmental Assessment serves as the ideal collective framework as well as a means to address the environmental impacts of the various IDP and SDF strategies. The development of the SEA is to be prioritised and guided by the 'Safe Operating Space' study that was undertaken by the municipality. In this regard the offer from the provincial Department of Economic Development, Tourism and Environmental Affairs (EDTEA) to finance the development of an EMF for the Metro should be considered as a matter of urgency.	• Extensive input has been made on coastal management planning in this report. • The SEA is underway
• Areas of attention in the next SDF review to include the Status Quo, action plans on remedial matters, identification of Environmental Management Zones and opportunities for development.	• EPCPD to address this
• Stewardship sites and local municipal areas to be considered for conservation value in line with the development of an Environmental Management Framework.	• EPCPD has address the mapping requirements
• An Agricultural Sector Plan is required to address the agricultural aspects, opportunities and protect high potential land and in this regard 2015 agricultural data is to be used. Additionally, KZN DARD Land Categories Dataset and Draft Policy Guidelines (2013 and/or 2015 or the most recently updated data) is to be incorporated into IDP and SDF in the next review.	• Reference was made in the 2015/16 SDF to the KZN DARD Land Categories Data Set • Further work will be undertaken in collaboration with KZN DARD
• Disaster Management needs refinement with the risk assessment needing to be mapped in the SDF and the prioritisation of a Disaster Management Plan in line with the next major SDF review.	• The report includes extensive detail on work carried out on Disaster Management in the city.
• Land Reform needs to be addressed by way of relevant progress sourcing studies and a spatial depiction of the gathered data.	• Land Claims are mapped
• The SPLUMA Process Plan is to be adhered to and SPLUMA compliance needs to be achieved in the 2016/17 SDF.	• TH SPLUMA process plan has been updated
• The mapping of the MTEF considers the past and present projects but fails to depict the future projects which hinder the analysis of the municipality's spatial form and intended path of growth. The comprehensive mapping of the MTEF and CIF is required in the next SDF review.	

• A focus on the wall-to-wall Scheme is to be prioritised in order to consolidate the various municipal schemes and facilitate the development of rural schemes on both state-owned and Ingonyama Trust land.	
• The municipality is to follow through on its commitment made to the SDF review in 2016-2017 to realign to National, Provincial and SP Guidelines and Modules.	• The Mapping of the MTEF has been updated and will focus on the extent the budget aligns with spatial priorities and catalytic projects.
• Cross border planning and cross border alignment across all neighbouring municipalities is to be refined by way of the drafting of plans to facilitate cross-border initiative and a closer focus being paid to provincial projects such as SIP2 which affects several KZN municipalities including eThekwini.	• Noted
• The municipality is to ensure that the Housing Sector Plan addresses all housing locations, types and spatial reflections mentioned in the SDF and IDP in future reviews. The lack of spatial representation of different types of housing subsidies in relation to each other and in relation to other developments in the municipality is to be addressed accordingly in the next review.	• Refer to the SPLUMA process plan in Annexure 4
• The municipality has not finalised the Disaster Management Plan but has submitted a Disaster Management Sector Plan. The municipality provided sufficient disaster management information integration and needs to finalise their disaster risk profile and develop risk profile maps. A key priority is to ensure the finalisation of the development of the Disaster Management Plan.	• Noted and will be considered in the city's project identification process
• The fine scale identification and mapping of environmentally sensitive areas within the eThekwini area through the D'MOSS plan is supported. The use of the D'MOSS for the protection of a network of biodiversity, ecosystem services, ecological infrastructure and natural capital within the eThekwini area is further supported.	• Currently being addressed
• eThekwini Municipality is encouraged to continue with the funding and budgeting for the continued protection of the D'MOSS network and the implementation of the ecologically required burn programmes, alien clearing and forest regeneration programmes which support the D'MOSS.	• Details provided in this report
	• Noted
	• Noted

ANNEXURE 11: COASTAL PLANNING AND MANAGEMENT

The eThekwini Municipality has 35km of coastal area that extends from Clansthal in the south to Westbrook in the north. Large sections of the coast are developed with some pockets of agricultural use. The existing spatial pattern of development, the existing utilisation, management and ownership of land and resources are a result of the fragmented and uncoordinated nature of planning and development along the coast.

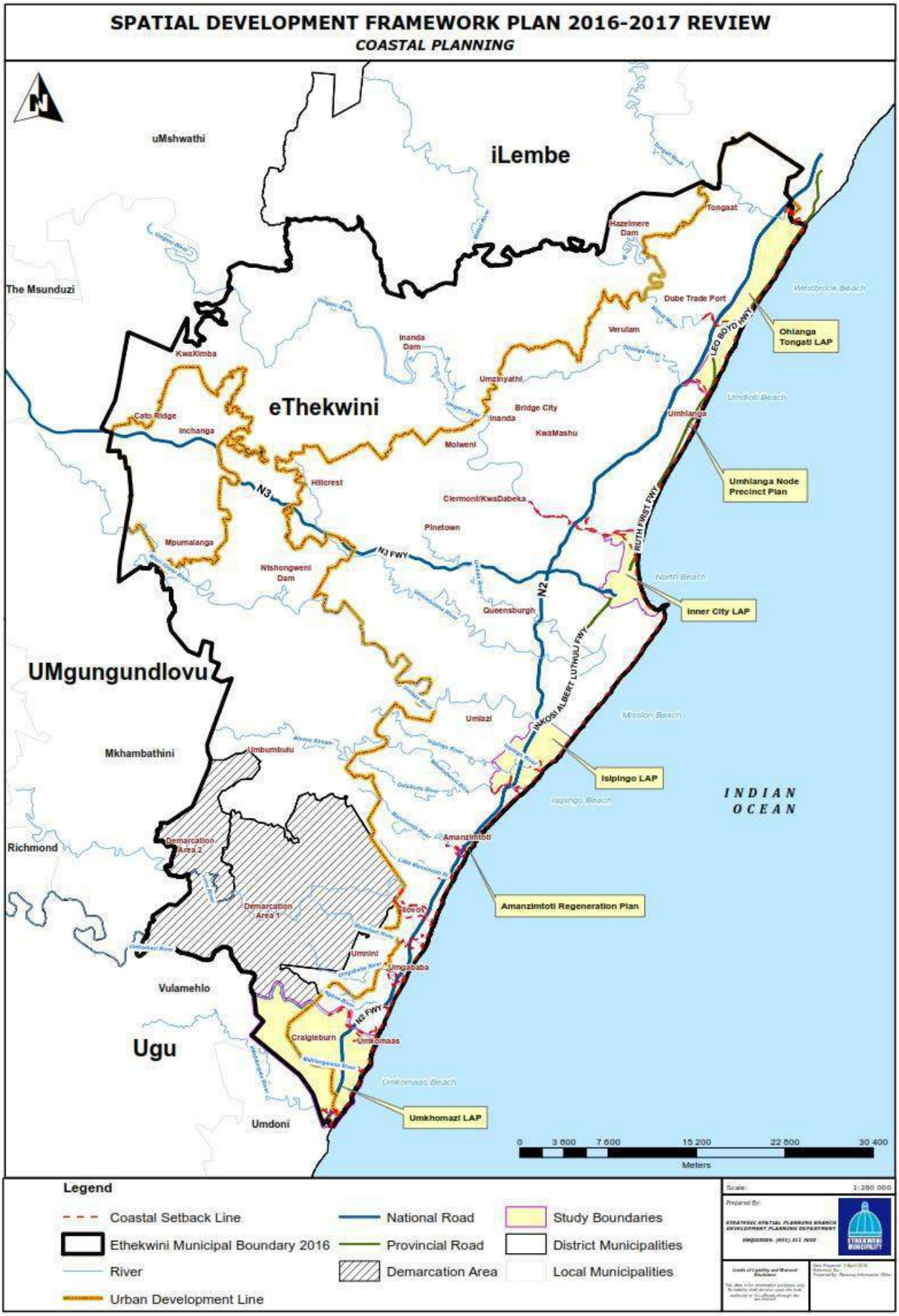


Figure: Ethekwini Coastal Planning

The coast offers prime residential and recreational opportunity. The coast is recognised as potentially one of the country's most significant opportunities. The Durban Metropolitan Area (DMA) in KwaZulu-Natal is recognised as one of the most important economic assets of the region and one of the most sensitive and fragile natural systems as well.

In an effort to protect, enhance and expand the coastal amenity, character, environmental service and resource base and maximise the economic and social development potential of our coastal asset, the Municipality has undertaken extensive planning since 1999 to guide development and recreation along our high value coastline. Coastal Planning undertaken by the eThekwini Municipality is further elaborated on in sub-section 2 below.

In terms of the Integrated Coastal Management Act 24 of 2008, the eThekwini Municipality has adopted a strategy that provides for the management of our coastline. The Coastal Management Strategy and programs currently underway are further elaborated on in sub-section 3 below.

1. Coastal Challenges

Some of the challenges that the coastal areas face are; pollution from industry, development pressures, informal settlement areas, and risk to shoreline developments from raised sea levels and increased storm surges, a high energy coastline resulting in erosion and loss of land, loss of coastal habitats and ecosystems and a limited capacity of the coastal environment to sustain the high demand for recreational access and use.

There are a number of environmental issues associated with this area that will constrain development and use of the coast unless appropriately managed:

- Poor quality water in the estuaries as a result of high agricultural outputs and sewage effluent discharge from upstream.
- Limited and highly fragmented coastal biodiversity asset as a result of historically high rates of land conversion for agriculture.
- Limited capacity of coastal environment to sustain high demand for recreational access and use.
- High energy coastline, much of which is eroding rather than aggrading.
- Threat / risk associated with sea level rise.
- Threat / risk associated with use of the near shore ocean as a shipping route.
- Threat / risk associated with major road and air transport routes adjacent to the coastal zone.
- Limited ability of estuaries to accept any more wastewater effluent if ecological reserve is to be maintained.
- Future development will threaten an already fragile network of natural assets.

2. Coastal Planning

As far back as November 1999, the Coastal Tourism Development Plan was adopted by the then Durban Metro and Sub-Structure Councils. This plan, established the role and functionality of the coastline in a metropolitan context and informed the earlier Metropolitan Spatial Development Framework prepared in 1998/1999.

Increasing pressure for additional coastal recreational facilities in the North Region in particular and increasing damage to municipal facilities along the coast from storm-water flooding and sea damage necessitated that the Municipality investigate innovative ways of managing land use and storm water disposal along the coastline to further protect the sensitive coastal environments and costly municipal infrastructure. To this end an Innovative Coastal Tourism Research Project (North Local Council, September 2000) was undertaken. This study identified the role and functionality of micro-catchments as a basis for informing appropriate land use and storm water management. Further detailed planning initiated in 2007, culminated with the adoption of the Ohlanga – Tongati Local Area Plan and Coastal Management Plan in February 2010, an innovative study combining land uses and coastal management and which extensively influenced the land uses included in subsequent reviews of the North Spatial Development Plan and Spatial Development Frameworks.

The work done in the North region was mirrored in the South Region. In considering the impact of coastal land use and storm damage on coastal tourism opportunities and coastal assets, in particular the internationally acclaimed Aliwal Shoal, the Umkhomazi Local Area Plan, 2010 recommends land uses and strategies that minimise the risk to effective coastal managements. Similar intentions to protect coastal assets in areas under extreme pressure for development have been addressed through the Umgababa Coastal Management Plan and an Estuary Management Plan for Isipingo.

It is important to note that the detailed proposals contained in all of the aforementioned plans have informed all relevant higher order plans (Spatial Development Plans and Spatial Development Frameworks) as part of the iterative process in which the package of plans is undertaken. Below are coastal planning studies undertaken by the eThekwini Municipality.

2.1 Coastal Tourism Development Plan

To address coastal development, in 1999, the Durban Metropolitan Council took the decision to prepare a Coastal Tourism Development Plan in line with recommendations in the Metropolitan Spatial Development Framework 1997 to provide development guidance and direction for tourism development. The Coastal Tourism Development Plan forms the foundation for coastal planning in the eThekwini Municipality.

The role of the coast was identified as;

- Gateway Role: by virtue of location the ocean terminal, old Durban International Airport and the Durban Central Railway Station were considered the most important gateways for tourism

within the DMA and the KwaZulu-Natal region.

- Vacation Destination: the sub tropical climate and swimming beaches together with entertainment, amusement and accommodation makes the coast a primary destination for local and domestic tourists.
- Business, Sport and Events Destination and Venue: the eastern seaboard and global economy makes the DMA attractive to both the international and domestic business community, the climate, high quality beaches, the ocean and harbour conditions as well as established sporting activities makes the coastline suitable for sporting events locally and internationally.

Aims of the Tourism Development Plan

- To promote tourism.
- To ensure that the DMA coast can accommodate the future development of tourism in KwaZulu-Natal and in the DMA.
- To establish an environmental equality, imageability and identity that is recognisable and desirable to tourists.
- To ensure sustainability of the resource base.

Development Strategies

Four development strategies were proposed to realise the aims of the plan. The strategies were meant to direct future physical development so that there is integrated tourism development and the protection and development of coastal resources which would contribute to the creation of an efficient, equitable and sustainable DMA. The strategies are;

- Consolidate the inner city into the Core Tourist Precinct in the KwaZulu-Natal region
- Consolidate the existing and establish new identifiable coastal tourism villages and recreation nodes
- Establish a coastal park system
- Improve the gateways into the KwaZulu-Natal region and the DMA and establish high quality tourism routes throughout the DMA.

Development Guidelines

Development guidelines were prepared at a regional and development zone level. At the regional level broad scale and strategic guidelines provide direction to tourism needs and ensures that broader development issues are indentified and addressed in an integrated manner. At a development zone level, the detailed guidelines provide direction with regard to specific issues, character and potential of the zone.

Regional Guidelines

At a regional level, the coastline is divided into three sections, namely the central region, southern region and the northern region.

The central region has the greatest mix of tourist attractions, experiences, events, accommodation and infrastructure. Key planning and development guidelines are;

- Develop as the 24 hour district of the inner city and link its various precincts
- Public land should be retained and/or strategically released to support land use activities
- Protect and expand D'MOSS
- Develop harbour, river and beach waterfronts and establish visual and physical connections between the central business district, the beach, Victoria Embankment and the Umgeni Estuary.
- Extend and upgrade the Golden Mile
- Unique features should be retained, protected and upgraded. Some of these features are the Bluff, Point Precinct and the Umgeni Estuary
- The proposed port expansion should include recreation and tourism and a linkage between the coast and hinterland populations
- Transport terminals should be upgraded and redeveloped
- Increase and enhance the range of shopping facilities
- Increase the residential threshold in the CBD
- Plan, design and manage coastal assets to maximise safety and security.

The southern region is a well developed region with little vacant land available for tourism and recreation. Future development is likely to include redevelopment of existing infrastructure and assets and small scale infill of pockets of available land. Interventions should thus focus on upgrading or enhancing existing features as follows;

- Existing tourism and recreational roles should be supported through upgrade of capacity and environmental quality of infrastructure, facilities and amenities
- Demand for local recreation and tourist development should be accommodated in a new village in the vicinity of Illovo Station.
- Existing open space network should be retained and protected as D'MOSS and where possible be expanded to form a cohesive system that supports residents and tourists
- Access should be improved in redevelopment of existing and future industrial areas. There should be focus on provision of recreation facilities for residents and workers
- New tourism initiatives should include industrial history, architecture and technology, angling and diving, cultural and shopping experiences, riverfronts and beachfronts
- Hinterland recreation and tourism potential within the river valley systems should be developed to cater for growth in recreational demand and to relieve pressure on the overdeveloped and fragile coast.
- Protect, enhance and/or create a sense of place and environmental quality within the various land use activities
- Plan, design and manage coastal assets to maximise safety and security.

The northern region is experiencing growth pressures from incremental township establishment and regional scale projects such as the airport, casino and theme park initiatives. Significant planning intervention is needed to ensure that environmental quality is retained and enhanced. Key actions include;

- Development should take advantage of the substantial natural character. D'MOSS guidelines should be used to ensure sustainable development.
- New nodes and villages should respond to climatic and environmental conditions.
- The development of the hinterland farmland should respond to the inherent qualities, character and conditions of the coastal plain and deliver high quality urban settlements and amenity
- Hinterland recreational and tourism development should be supported to ensure that undue pressure is not placed on the fragile coast.
- Existing development rights in area located between the coastal road and the high water mark should be reviewed to ensure high quality development and to avoid degradation of the dunes and natural assets.
- Plan, design and manage coastal assets to maximise safety and security.

Development Zone Guidelines

Detailed guidelines have been prepared for each Development Zone which identifies the development responses that should be encouraged within each zone in terms of role, strategies and regional guidelines. The development guidelines cover the following zones; Old Airport, Amanzimtoti (including beach and residential), Amanzimtoti Estuary, Bluff, Bluff Beaches, Doonside Beach and Residential, Doonside Estuary, Durban Central, Illovu Estuary, Illovu North Residential, Illovu South Residential, Isipingo Residential and Beach (including the Estuary), Karridene, La Lucia Residential/Commercial, Mbokodweni Estuary, Merewent, SAPREF Dune, Umdloti Agriculture, Umdloti Lagoon, Umdloti Village, Umgeni Estuary, Umhlanga Commercial, Umhlanga Lagoon and Forest, Virginia Airport and Virginia Bush, Westbrook to La Mercy, Westbrook Coastal Forest, Westbrook Agricultural, Winkelspruit and Winkelspruit Residential and Beach. The guidelines cover the following categories; development classification, settlement and land use, environmental quality and character, land, infrastructure, institutional, administration and general remarks.

2.2 Local Area Plans and Coastal Management Plans

The eThekwini Municipality has undertaken a number of Local Area Plans and Coastal Management Plans, Precinct Plans and Regeneration Plans that informs and guides development along the coast. Some of the plans have been completed and adopted by Council whilst some projects are currently underway. The Ohlanga Tongati Coastal Management Plan and Local Area Plan, Umhlanga Node Precinct Plan, Isipingo Local Area Plan, The Inner City Local Area Plan and Regeneration Strategy (draft), Umkhomazi Local Area Plan and Amanzimtoti CBD Nodal Regeneration Plan are summarised below.

Ohlanga Tongati Coastal Management Plan and Local Area Plan

The Ohlanga-Tongati Local Area extends from the Ohlanga River in the south (north of Umhlanga) to the Tongati River in the north (northern eThekwini Municipality Boundary), and to the N2 Freeway in the west. This area has been identified in the Municipal IDP as a major future growth axis for residential, tourism and commercial land uses. Two of the key drivers of this growth are expected to be the King Shaka International Airport and Dube Trade Port.

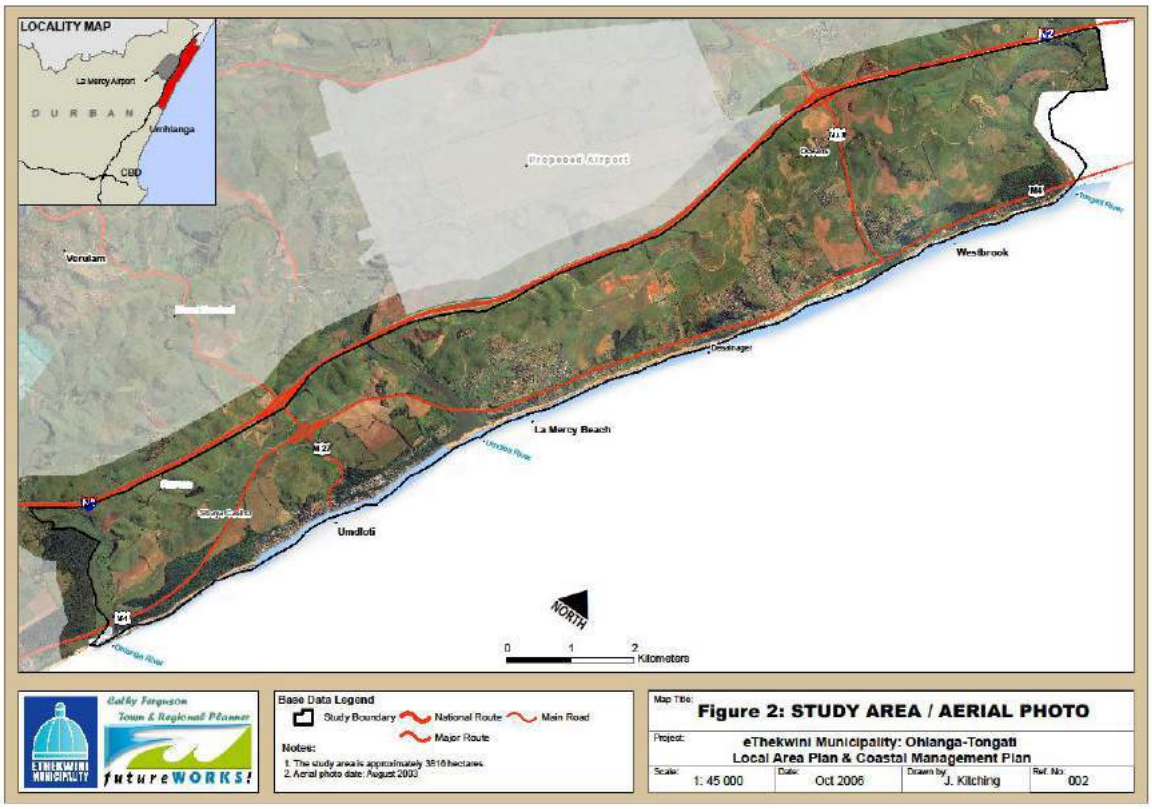


Figure: Ohlanga Tongati LAP Study Area

The Ohlanga-Tongati Local Area contains a section of the national coastal corridor. It also forms the receiving environment for three major river systems in the eThekwini Municipal Area (Ohlanga, Umdloti and Tongati), and a number of smaller catchments draining land near to the coast.

The Ohlanga Tongati Local Area Plan and Coastal Management Plan suggests that the future use of the area be mainly residential and recreational with supporting commercial and social facilities. The plan identifies a hierarchy of mixed use development nodes and recreational nodes. Outlined below are the broad development guidelines for the study area followed by a detailed description of development proposals for the study area.

Broad Development Guidelines

The plan provides broad development guidelines that informs residential densities, mixed use nodes

and recreational nodes.

The plan provides a mix of urban and suburban residential options that will accommodate permanent and tourist related accommodation. Densities vary between low (gross density of 5-10 du/ha), medium (gross density of 10-25 du/ha) and high (gross density of greater than 25 dwelling units per hectare. Residential areas should be designed as neighbourhoods and informed by the open space system. Higher densities should be located at mixed use nodes and along public transport routes and lower densities along rivers, valleys and steeper slopes. The layout of residential areas should respond to view sheds and vistas. Visual Impact assessments are required for development.
The study proposes metropolitan, sub metropolitan, district and local mixed use nodes that would serve a metropolitan wide down to the local population. The sub metropolitan nodes should be accessible and accommodate public transport facilities. Local nodes should provide convenience shopping and services and include accessibility to public transport.

Several recreational nodes already exists in the Ohlanga Tongati area and the study suggests that some of these nodes be enhanced to develop recreational and tourist opportunities in the area. Recreational nodes are intended to be of high, medium and low intensity use. The medium to high intensity recreation nodes will provide facilities for metropolitan and local residents and tourists. These nodes are located at existing natural features that are further enhanced with recreational opportunities. Additional opportunities may include pleasure activities and angling piers, restaurants, refreshment kiosks, change rooms, beach offices, swimming baths, paddling pools, parking, beach equipment stores, lifesavers and swimming club, shops for the sale of beach goods and buildings for navigational aid. These nodes should include cycle routes. Umdloti Beach and Westbrook Beach have been identified to function as medium to high intensity recreational nodes.

Low Intensity recreational nodes will provide recreational facilities for local residents and tourists. The nodes may be located at natural features and scenic spots but where its use will not damage natural features. There may be a few additional facilities added to enhance the opportunities such as picnic and ablution facilities with small kiosks. Umdloti Lagoon has been identified as a low intensity recreational node.

Ecologically sensitive recreational nodes provide recreational facilities for local residents and tourists; making use of natural features with minimal additional facilities to enhance opportunities such walking trails and ablution facilities. The use of these nodes are minimised so as not to damage its sensitive environment. Hawaan Forest has been identified as an ecologically sensitive recreational node.

Detailed Development Proposals
Wetlands should be zoned Public or Private Open Space. They should be considered visual assets and incorporated into the design of the node. Wetland area should be buffered from development.
No development should occur along rivers. Forests should be zoned Private or Public Open Space. and managed as part of the open space system of the municipality. Forests may be developed as

ecologically sensitive recreation nodes.

Scheme extensions should identify the open space system and should either zone these areas as public or private open space or if this is not cadastrally possible, depicts this on an Open Space Overlay that sets out the need for these areas to provide environmental services for the municipality.
Estuaries can be controlled/limited use of estuaries which should be zoned as Public Open Space and form part of the greater open space system. Development should be well set back from the estuary. Estuaries could be developed as ecologically sensitive recreation nodes.

Proposed inland residential
There should be a mix of low and high densities throughout the study area; higher densities should be considered along Watson Highway, the M4 realignment and M27 and close to local nodes.
Development to be pulled away from valley lines as identified on the environmental framework plan.
There should be lower densities adjacent to sensitive environmental areas such as estuaries.
There is opportunity for the establishment of B&Bs. Development along N2 should be sensitive to noise, pollution and views of those using the N2.

Existing Recreation at Westbrook Beach
The intention is to develop the existing Westbrook Beach as a medium to high intensity recreational node. A precinct plan should be prepared extending from the northern end of the Westbrook Beach parking area to the southern portion of Causarina Beach facilities. The precinct plan should include development proposals and projects to enhance the recreational node, urban design, pedestrian, cycle and vehicular movement, parking, public facilities, protection of dunes, zoning, and management of facilities. The existing Westbrook Beach facilities may be expanded. Dunes should be protected to buffer against sea level rise. The forest area to the south of Westbrook Beach should be retained in its entirety. Current GR 2 Zonings to be amended to Public or Private Open Space and Government and Municipal. No development shall be permitted east of the coastal erosion line or the development setback line.

Existing residential north of Westbrook Beach recreational node
The study proposes that the commercial site be rezoned to residential as it is currently developed for residential purposes. The Special Residential Zoning should be retained. There should not be further intensification/densification of development. The access to the beach through the dune cordon requires very careful control and may not be allowed without prior municipal approval. Bed and Breakfast establishments (B&B) may be considered in this area.

Existing residential inland of M4 at Westbrook Beach
Typical curvilinear low density residential settlement - existing zonings of developed sites should be retained. There is opportunity to establish B&Bs. Densification through medium density housing on existing large lots should be considered when there is adequate sewage capacity.

Westbrook Beach hinterland precinct

The study proposes a possible sub metropolitan node at the intersection of the N2 and Ushekela Highway (Watson Highway) or new M4 Re-alignment and Ushukela Highway). The node should incorporate mixed-use higher order commercial (retail and office), community services and facilities, high density residential developments including hotels and must include public transport.

Forested areas at Tongaat Beach precinct

The forested areas on the western side of M4 should be retained.

Existing recreational node at Tongaat Beach

The existing medium intensity recreational node should be retained. Additional parking is required with possible back of beach parking an option if suitable.

Causarina Beach

Causarina Beach should be seen as a medium to high intensity recreational node.

A Precinct Plan should be prepared similar to the existing node at Westbrook Beach. The existing Causarina Beach facilities may be expanded and existing parking areas must be retained.

Boutique hotels may be considered on existing Special Residential and General Residential sites once there is sufficient wastewater capacity. Larger hotels should be encouraged to locate west of the M4 with appropriate pedestrian crossings over the downgraded M4.

Existing commercial zoning should be retained for beach related shops and restaurants – zoning should be amended to allow for 2 storeys only and appropriate parking. The access to the beach should be redesigned and dune vegetation to be rehabilitated where possible.

No development shall be permitted east of the coastal erosion line or the development setback line.

Existing residential at South Beach Road, Causarina Beach

The existing general residential zoning with a 2 storey height restriction should be retained. Height restrictions should be lowered from 8 storeys to 6 storeys. Bed and Breakfast facilities and Boutique Hotels and restaurants should be allowed.

Tongaat Beach Hinterland Precinct

There is a possibility of a sub-metropolitan node at the interchange of the N2 and access to the King Shaka International Airport or at main intersections of the M4. The node should comprise of mixed-use higher order commercial (retail and office), community services and facilities, high density residential developments including hotels and must include public transport.

Umdloti Beach coastal forest

There should be no development in the coastal forests however the forest may be used for passive recreation. The forest should be zoned Private or Public Open Space. The forests should be managed and retained as part of the open space system of the municipality.

Umdloti Beach existing residential – North Beach

High densities should be limited to the existing General Residential zonings. Rezonings to higher densities should not be considered especially on the Beach Road. The coastal erosion line is very important in this section of the coastline.

Bed and Breakfasts establishments may be considered.

Umdloti Beach existing residential – South Beach

The coastal erosion line is very important and must be adhered to. Bed and Breakfasts may be considered as long as they comply with the existing Special Residential zoning. No densification/rezoning of properties to permit higher densities shall be permitted.

Regional recreational node at Umdloti

Back of beach parking needs to be provided. If parking provision can be adequately addressed then restaurants and beach related shops should be considered along the northern stretch of North Beach road.

Proposed residential at Umdloti

The plan proposes a higher residential density along ridge & lower densities eastwards with low densities along wetlands & river banks.

Umdloti Beach Hinterland

There is a possibility of a metropolitan node at the interchange between N2 and M27 or a mixed use district or sub-metropolitan node. The mixed-use node should provide higher order commercial (retail and office), community services and facilities, high density residential developments including hotels and must include public transport.

Progress to Date:

Due to the lack of infrastructure capacity only currently zoned sites are developable.

Umhlanga Node Precinct Plan

The Umhlanga Node Precinct Plan was undertaken to provide a vision and framework for coordinating and informing both public and private investment and directing the physical development and management of all initiatives to deliver a well integrated, pedestrian-friendly, safe and attractive environment for residents, visitors, and tourists. The plan was adopted by Council in June 2008.

The Development Vision seeks to create a seaside resort and tourism destination which is people friendly, walkable and safe, with a cosmopolitan sense of place and urbanity, an ‘urban village’-like environment in which residents and holiday makers feel equally at home and a unique place that embraces the life, activities and events of holiday makers as well as accommodating and protecting the needs of the local community in a balanced and well-managed environment.

The concept is to design a beach promenade that affords views of the sea and access to the beach while leaving it as natural as possible and to create a back of beach spine “The Ramblas” that provides a range of public spaces as depicted in the figure below.



Figure: Beach Promenade Public Space

The plan is based on creating strong linkages with the greater Umhlanga area, urban design elements of place making, people friendly environments, human scale development , improving the socio-economic status as well as to build community and create partnerships. The plan proposes intensification of residential usage within the study boundary translating to 69 dwelling units per ha that would provide 500 additional residential units or 50 000m² of floor area.

Built Form Directives

The following built form directives apply to the Umhlanga Node Precinct only.

- Height – to be controlled by the existing Town Planning Scheme in conjunction with the eThekwini Minimisation of Shadows on Beaches Policy and the built form guidelines.
- Views and vistas should be protected.
- Where height is permitted it should take the form of a point block rather than spread height forming a wall.
- A design-led approach to new development proposals for the definition of height and massing at site level is recommended.
- More connections to the beachfront and mid-block connections in the commercial core should be

introduced.

- Site development parameters to direct private development to engage more strongly with the public realm.

Place Making Elements

- Landmarks must be acknowledged, highlighted and protected.
- Gateways – the entrance to Umhlanga over the M4 should be enhanced as the gateway to a unique destination and holiday resort.
- Urban fabric – to capture the area's character, public art and robust, standardised street furniture should be used in a consistent manner.
- Signage/advertising - Needs to be standardised and must avoid interference with views and vistas; specific guidelines should be developed.

Legibility and sense of place

- Vistas and views – Important vistas of the sea and panoramic views need to be protected.
- Physical model of the precinct is recommended to test impact of development proposals on views, vistas and amenities.
- View sheds analysis recommended for development proposals.

Progress to date

The promenade provides a place for walking, jogging and access with viewing areas and rest places. A tidal pool is proposed to provide additional swimming opportunities for which an environmental impact assessment is currently underway. A stormwater pier has been built which serves its engineering function but which also performs a recreational and aesthetic function. The municipality has recently approved development on the former municipal complex site on Lagoon Drive. The development shall comprise retail, residential units, hotel accommodation, offices and conferencing facilities.

Isipingo Local Area Plan

The greater Isipingo area was identified as an area in need of strategic intervention, largely due to recent developments and proposals, (the relocation of the old Durban International Airport [DIA]; the proposed development of the Durban Dig-Out Port [DDOP]; the study area's potential to accommodate the Automotive and Logistics Industry; the development of Umlazi Megacity, Arbour Town and the study areas potential for residential intensification, but also in view of the areas current overall degenerated state.

Given the above, eThekwini Municipality, through the Strategic Spatial Planning Branch and Land Use Management Branch initiated the Isipingo Local Area Pan (LAP), Functional Area Plan (FAP) and Scheme Review in January 2015. It is anticipated that the Draft Isipingo LAP, FAP and Scheme Review will be tabled before Council in March 2016, for consideration to be adopted.

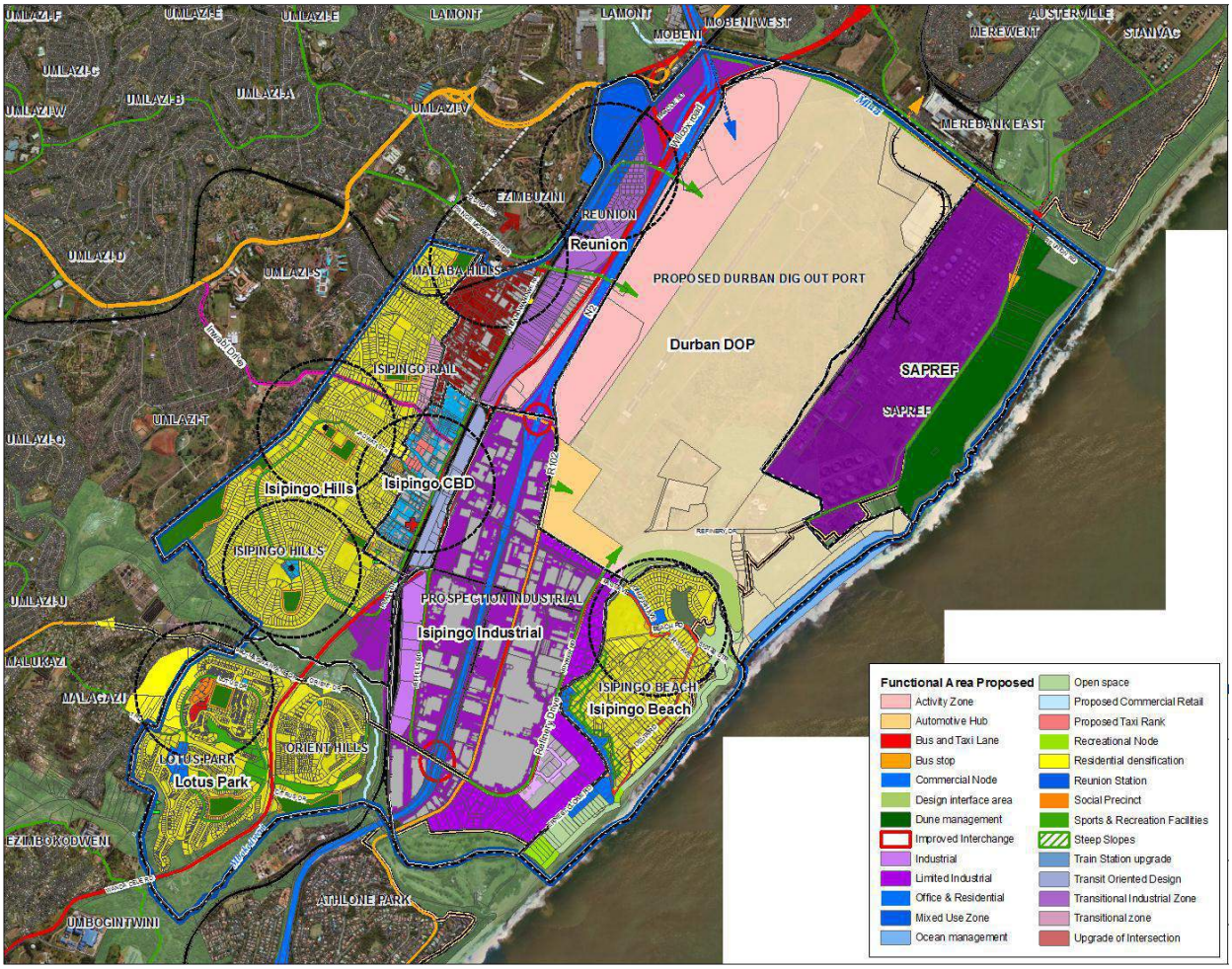


Figure: Isipingo Local Area Plan Study Area

The entire eastern boundary of the study area falls within the coastal zone which includes the dune corridor, sandy beach, rocky shore and near-shore ocean. The Coastal Zone is a very dynamic zone as it is the interface between the terrestrial and marine environments.

There are two recreational beaches within Isipingo, namely Reunion and Isipingo Beaches. There are also two other 'beach resorts' on Ocean Terrace and Ernest Clockie Road. All four of these facilities are very important recreational nodes for both local and regional users.

The poor water quality at these beaches is a major concern and this is largely as a result of the organic and chemical pollutants carried down by the rivers and discharged into the near-shore ocean. A number of potential sea level rise scenarios were modelled by the eThekwini Coastal and Stormwater Catchment Management Department (CSCMD) to ensure that current and future development within the coastal zone takes into consideration the potential impacts of sea level rise. This includes for example increased coastal erosion, exacerbated storm surge flooding, and more extensive coastal inundation, which could result in loss of coastal habitats, property, and even life, as well as tourism, recreation and transportation functions.

LAP Response to Coastal Issues

The spatial concept and refined Functional Area Plans responds to anticipated climate change related coastal management challenges by acknowledging the protected coastal areas and ensuring that constant cognisance is taken of the potential impact of Inland development within the study area on the coastal strip. The study further acknowledges the coastal setting of the LAP and the associated environmentally important coastal zone and lagoon area which is mostly underutilised and being threatened in certain areas.

The significance of the Isipingo Coastal area is highlighted within the South Spatial Development Plan which requires both the identification of unique coastal tourism opportunities as well as calling the development of coastal management plans. The Isipingo LAP subsequently accommodates and supports the strategies contained within the eThekwini Coastal Zone Strategy as well as the South Durban Basin Coastal Management Plan.

The eThekwini Coastal Zone Strategy aims to *protect, enhance, optimize and manage* the eThekwini Coastal Zone in a holistic and integrated way. The Strategy highlights the importance of estuaries to the City as:

- Essential components of a healthy coastal ecosystem;
- Nurseries to many fish species;
- Key recreation nodes; and
- Receiving environment for effluent created higher up in the river catchment.

Within the Isipingo LAP the management of effluent in to the estuary and coastal area is a key development principle and within the Isipingo Beach FAP key recreational nodes have been identified. The South Durban Basin (SDB) Coastal Management Plan aims to provide a framework for the *utilisation, protection, development and management* of the coastal assets within the coastal area between the northern end of the Bluff headland and the suburb of Amanzimtoti North. The Isipingo study area falls within two of the six identified coastal precincts, namely the SAPREF Dune and Isipingo Precincts.

For each of the Precincts, the features, facilities, activities and risks are identified. With respect to the Isipingo study area, the following issues were highlighted:

- Lack of catchment management;
- Sea level rise;
- Unstable land;
- Industrial development;
- Uncontrolled resource harvesting; and
- Uncontrolled settlement.

The Isipingo LAP calls for improved catchment management and a rehabilitation of the dune areas subjected to uncontrolled settlement and the increase in industrial development adjacent to this area. Key strategies and proposals towards improved coastal management within the Isipingo LAP include:

- Rehabilitate and development coastal strip – Appropriately protecting, managing and rehabilitating the coastal strip. It also means restricting and in some instances stopping the removal of natural vegetation found on dunes and in nearby coastal nature reserves. Management of these dunes is necessary and all attempts must be made to protect these areas from being exploited.

- Protection of Rivers - Given their location, these ecosystem services will also be important in reducing urban and industrial pollution effects on the coastal zone of the South Durban area, including Amanzimtoti.

- Rehabilitation of Wetlands / Estuaries **-** Although many of these wetlands have been drained and developed to industry, the remaining wetlands are likely to play a significant role in regulating surface and groundwater flows, as well as managing the water quality of rivers feeding into both the eziMbokodweni and Isipingo Estuaries, and subsequent coastal zone / near shore ocean.

- Dedicated Coastal Management Plans – Comprehensive implementation of the eThekwini Coastal Zone Strategy as well as the South Durban Basin Coastal Management Plan and the formulation of a dedicated Port related Coastal Management Plan as part of the proposed Durban Dig Out Port process.

- Sustainable Development Inland - Ensuring that development is sustainable both in terms of coastal and environmental considerations, physical and social service provision, local economic development etc, including maintaining the coastal and riverine development, building on the economic development potential without negatively affecting the natural and human environment.

- Strict Environmental Authorisations **–** In terms of the Integrated Coastal Management Act, 2008 (Act No. 24 of 2008), no person may discharge effluent that originates from a source on land into coastal waters except in terms of a general authorisation contemplated in subsection (2) or a coastal waters discharge permit issued under this section by the Minister after consultation with the DWA in instances of discharge of effluent into an estuary. The constant monitoring and management of this requirement should be a continuous activity, especially during any future industrial and/or port development.

LAP Interventions and Land Use / Activity Guidelines

The Isipingo Beach Functional Area:

- Located along the coast and adjacent to the Prospecton Industrial area

- Isipingo Estuary at the northern boundary of the area is a significantly compromised environmental asset.
- Pristine beaches with fossil finds along the length of the area with three developed beach nodes viz. Isipingo Beach, Dakota Beach and Tiger Rocks Beach.
- The Isipingo Estuary and the Beach and Dune structure within this functional area is arguable the most significant environmental assets within the entire study area and would need to be protected and appropriately utilized.
- The Durban Dig Out Port initiative's current design suggests a port entrance adjacent to the estuary and an appropriate environmental interface with the estuary would need to be implemented to ensure that the integrity of the estuary is not further compromised.

Implications for Land Use Management

- Continued use and development of the Isipingo Estuary and beach areas for tourism activities and purposes must be promoted and no development in proximity of the designated tourism zones, may negatively impact on these natural resources and/or the ability to serve as a tourism and recreational area.

Key Identified interventions include:

- Rehabilitation of Isipingo Estuary
- Dune Rehabilitation (Dakota Beach)
- Urban Greening programme
- DOPP Interface Buffer

The Durban Dig-Out Port Functional Area:

- Located on the old Durban International Airport Site,
- The most environmentally significant aspects of the functional area would be the impact on the beach and coastline as well as the Isipingo Estuary.
- The Isipingo Estuary and the Beach and Dune structure within this functional area would need to be protected and appropriately utilized.
- The Durban Dig Out Port initiative's current design suggests a port entrance adjacent to the estuary and an appropriate environmental interface with the estuary would need to be implemented to ensure that the integrity of the estuary is not further compromised.
- Apart from the environmental aspects on the DDOP Site which will be addressed as part of its comprehensive environmental authorisation process, the interface area of the port with the Isipingo Estuary would need to be properly planned and management to ensure not only the natural health of that system, but also the impact on the relevant residential community.

Implications for Land Use Management

- The proposed port remains subject to a number of environmental and social feasibility investigations and authorisations and any future land development application will require that all

of the legal required applications have been positively concluded.

- The future zoning for the proposed port will be based on the existing Durban Port zoning.
- The interface area between the proposed port and the Isipingo Estuary area will need to be addressed in more detail during formal application and development processes to ensure that the functioning of the estuary and the current amenity of the community residing around the estuary is protected.
- Although within the Durban Dig Out Port functional area (and unless otherwise negotiated), the portion of land owned by the eThekwini Municipality and currently accommodating the public pools, is anticipated to be development for tourism purposes such as an hotel at the edge of the proposed harbour entry.

Key Identified interventions include:

 - Port Related Estuary Management Plan
 - Port Related Coastal Management Plan

The SAPREF Functional Area:

- Located along the coast to the east of the old Durban International Airport Site,
- The coastal area and the dune adjacent to the SAPREF Site is significant and will need to be protected as part of the larger port development initiative.
- Apart from the environmental aspects on the DDOP Site which will be addressed as part of its comprehensive environmental authorisation process, the SAPREF site and adjacent dune and coastal interface area would need to be properly planned and management to protect the area.

Implications for Land Use Management

- It is proposed that the new northern access routes to the SAPREF be accommodate within any future scheme reviews. The exact locality, dimension and provisions for such access routes will be provide by Transnet and SAPREF.
- Although the industrial zone accommodating SAPREF extends onto the dune area, mainly due to cadastral boundaries, the FAP illustrates a no development area within the zone in order to avoid any developments onto the dune area.

Key Identified interventions include:

- Port Related Coastal Management Plan

The (Draft) Inner City Local Area Plan (LAP) and Regeneration Strategy

The Inner City is identified as the urban core and the gateway to the greater city of Durban. This core has experienced a significant negative cycle of business flight, disinvestment in privately and publically held residential and commercial built form, which has further been exacerbated by the well-intended, but poorly coordinated public interventions. The aforementioned factors contributed significantly towards an underperforming Inner City economy which in turn contributed to an area that is in decline.

Given the above, the City has recently initiated the development of the Inner City Local Area Plan (LAP) and Regeneration Strategy.

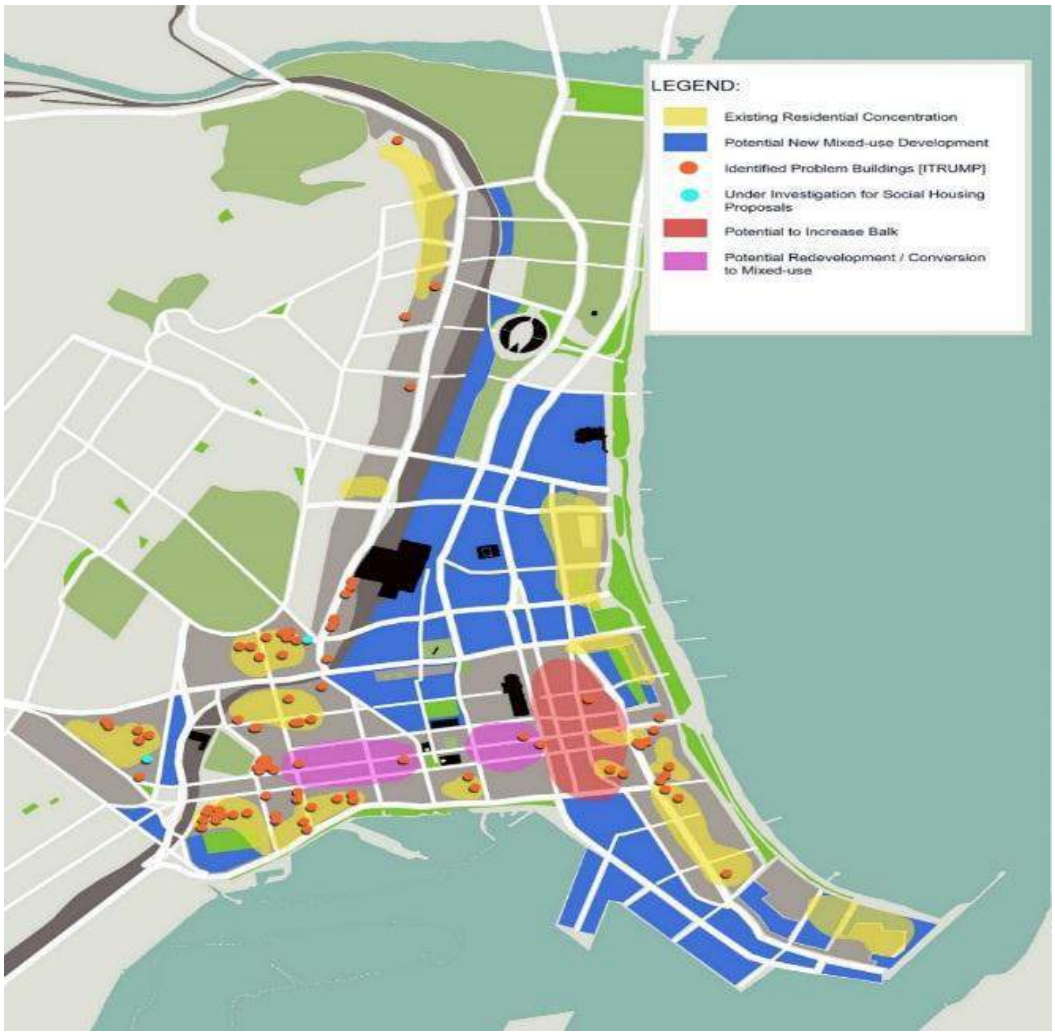


Figure: The (Draft) Inner City LAP Study Area

Opportunities and Challenges

In accepting the need to revitalise the value of the Inner City, the draft LAP and Regeneration Strategy proposes recognition of the true value of the existing assets and in turn creating the

opportunity for new investment. This has been identified as a key requirement of the proposed LAP and Regeneration Strategy. Some of the coastal assets/opportunities include: waterfronts and sports facilities and event, favourable climate, proximity to the Port and port expansion plans, the mangroves in the Durban harbour and the Umgeni estuary. Conversely, some of the Coastal challenges that need to be addressed by the LAP and Regeneration Strategy are Sea Level Rise, coastal storms and flash flooding.

Spatial Rationale

The draft LAP and Regeneration Strategy has developed the following vision for the Inner City of eThekwini: The most caring city, where Durban is Africa's leading, most vibrant, liveable, walkable City Centre and provides an environment for economic, residential, sporting and leisure opportunities for all.

The spatial logic for regeneration of the Inner City is grounded in the policy context, the understanding of the economic drivers of future growth as well as the vision that has been developed for the future of the area. The spatial logic itself is expressed in terms of spatial principles which will guide the development of strategies (what to do), the spatial framework (where will it happen) and projects (specific implementable actions).

The principles adopted are: Promote a Connected City; a Walkable City; Promote Integration and Inclusivity (Ensure a City for All) and finally Regenerate and Expand within a Sustainable Framework (Realising the Potential).

Draft LAP and Regeneration Strategy's Response to Coastal Issues

The Inner City is defined by its proximity to the ocean, the Port and the Umgeni River. Major infrastructure has been developed that starts to link the city to the ocean (the promenade) and the river (the green hub). Future development like The Point will extend the promenade even further. An opportunity exists to ensure the revitalisation of the city and its future expansion contributes to making links between existing and enhanced open spaces, including the sports precinct and completed water's edge that is accessible to all. Existing open space systems (D'MOSS) can be extended and expanded through the Inner City to the waters' edge. The expanded city provides an opportunity to increase the number and type of open spaces, along streets with parks and squares. Large and small open spaces, developed in conjunction with new built form, will ensure a sustainable open space network. Larger open spaces alongside the waters edges link to the Berea through the Inner City.

The major movement corridors form the primary links between open spaces and the three waters edges. Large, natural open spaces such as a redefined sports precinct are linked to the port along a network of north/south corridors that include both major movement routes (M4/Stalwart Simelane,
Dr. Yusuf Dadoo, Mahatma Gandhi) and pedestrian oriented corridors (Masabalala Yengwa, Centrum, Dorothy Nyembe, an extended promenade around the Point to Margaret Mngadi). East west links between major open spaces include Sandile Thusi, K.E Masinga and an expanded port edge along Margaret Mncadi Avenue. Redefining the public realm will increase the legibility of the city

as it expands into the future. Short, medium and long term interventions can be planned to complete a public realm that integrates both the built and natural environment.

Current Status

The Draft Inner City LAP and Regeneration Strategy is currently being undertaken by the Catalytic Project Office, under the ambit of the Acting Deputy City Manager (Economic Development and Planning). It is anticipated that the Draft Inner City LAP and Regeneration Strategy will be concluded in the near future.

Amanzimtoti CBD Nodal Regeneration Plan

The Amanzimtoti CBD Nodal Regeneration Plan was initiated by the eThekwini Municipality in April 2009 and was approved by Council in October 2011. The primary purpose of this project was to develop a strategy to address the urban decay and the economic decline that has taken place within the historical Amanzimtoti Town Centre.

The Amanzimtoti CBD located in the southern region of the eThekwini Municipality, constitutes a mixed use node situated adjacent to the N2 south along the corridor with easy access to the N2. The N2, Andrew Zondo Road (Kingsway) provides access to the populations of Amanzimtoti, Kingsburgh, Warner Beach, Umbumbulu and Illovo.



Figure: Amanzimtoti CBD Locality

This plan investigated a long term strategy for the area that proposed the enhancement of the estuary by creating a riverfront zone with a continuous promenade/boardwalk that extended from the civic and sports area in the west all the way along the estuary up to the Amanzimtoti beach. This would enable the connection of the civic and sports areas to recreational and beach activities at the coast.

The primary aim of the conceptual framework was to promote urban renewal by creating a flexible urban structure and supportive public realm investment that permits a mix of uses within the study area.

Creating a Riverfront

The Amanzimtoti River provides a potential crucial link between the coast, town centre and western civic and recreation nodes. This project is based on the development of a river promenade and associated leisure/ parkway zone that offers an opportunity in itself whilst at the same adding value to land straddling the river for potential conversion into supportive uses that contributes further to the critical mass to support the reestablishment of the centre.

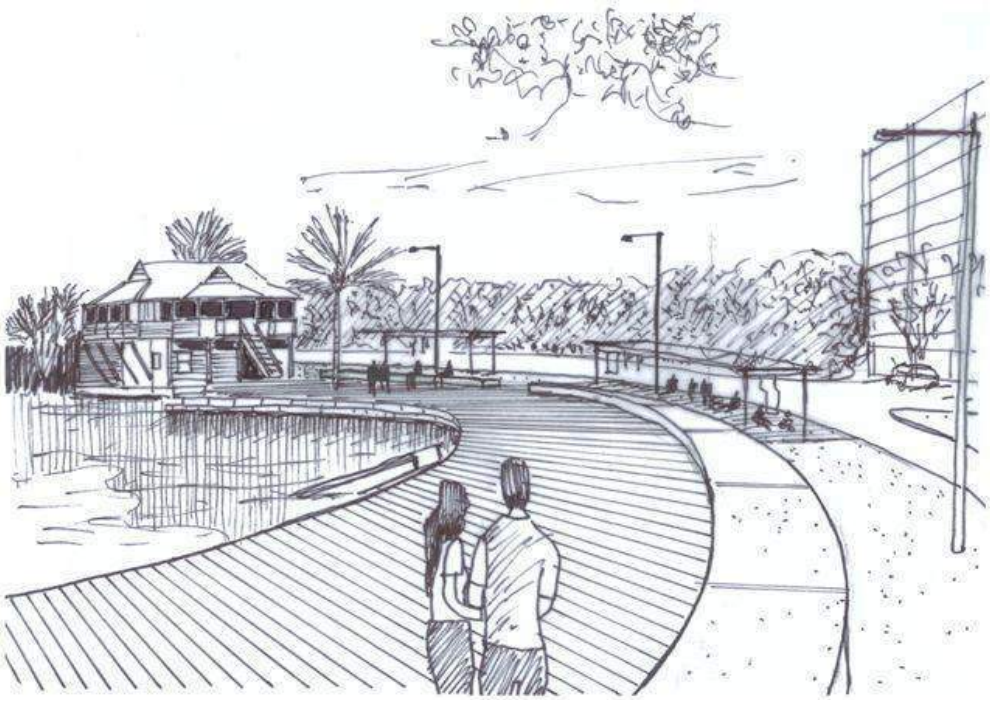


Figure: Establish a Coastal Promenade

To provide a coastal promenade that connects the beach to the back of beach facilities, such as along the estuary edge, will positively reinforce and grow the tourism potential of the area to achieve the following:

- There is an opportunity to clean the estuary and free it from the litter as an interim measure.
- Maintenance of the coastal promenade should continue, verges should be maintained along the length of promenade. Damaged pavers should be repaired.
- Maintenance and upkeep for both the civic and sports facility should occur until such time a role/upgrade for these facilities can be determined.

Umkhomazi Local Area Plan

The Umkhomazi Local Area Plan was initiated by the municipality in June 2009 approved by Council in October 2010. The purpose of the Local Area Plan was to provide guidance for the future planning and development of the area that was informed by the existing wider development frameworks.

The primary study area, is the Umkhomazi planning area, for which an appropriately detailed local area plan has been done. The immediate surroundings consist of the Umgababa and Illovu areas in the north, the Vulamehlo Municipality in the west and the Umdoni Municipality in the south with the wider surrounding areas covered in particular by the South Spatial Development Plan.

The wider context included the role of Umkhomazi within the eThekwini Municipality and potential influences from the adjacent Ugu District. In addition the local area plan was completed on the basis

of a good understanding of the provincial and national context.

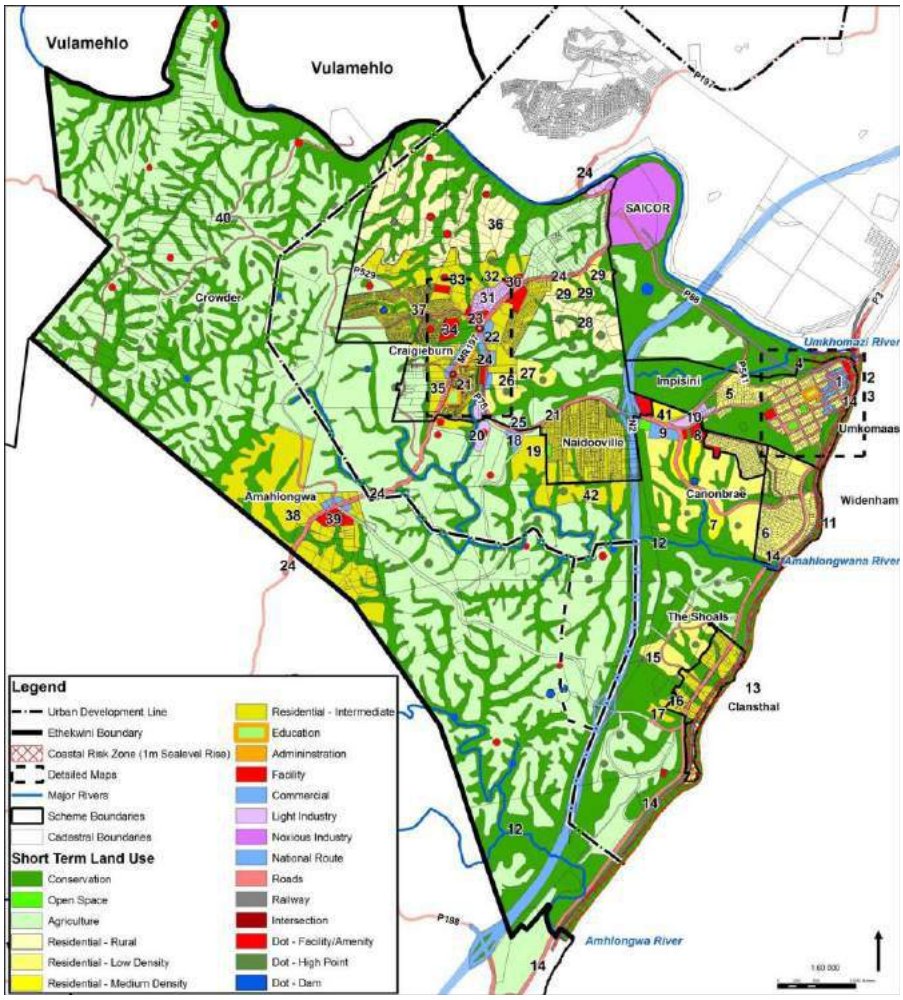


Figure: Umkhomazi LAP Study Area

LAP Response to Coastal Issues

The Aliwal Shoal, a Marine Protected Area (MPA) located off the Umkhomazi coast, is a popular recreational feature generating significant revenue for the local economy of Umkomaas. The Aliwal Shoal protected under section 43 of the Marine Living Resources Act (Act 18 of 1998), is a sub-tidal reef supporting 15 species of hard and four species of soft coral.

The Shoal is home to many endangered and endemic fish species as well as several shark species and has been a source of conflict between user groups. In recent years, however, formal agreements between fisherman, spear fisherman and divers have been reached and a management plan implemented to ensure sustainable use of the shoal in the future. The Marine Protected Area status of the Shoal (acquired in 2004) serves several functions, with the objective of maintaining the status and integrity of the shoal and its fauna.

These functions include conservation of the reef fauna, the development of a world renowned diving site and the regulation and control of the Shoal's various user groups. The proximity of the shoal to the coastline means that it is susceptible to discharge into the Indian Ocean by industries along the Mkomazi River.

SAPPI"s SAICCOR plant is by far the largest industrial zone within the Umkhomazi area. The plant is a major contributor to the regional as well as the local economies and provides direct employment for approximately 1100 workers and supports approximately 15 000 through secondary employment. The waste and production by-products such as lignosulfate are also pumped out into the Indian Ocean.

There are two major conservancies in the area, the Umkhomazi and Clansthal conservancies. The Umkhomazi conservancy is located between the Mkomazi (north) and Mhlongwana (south) rivers in the Umkhomazi area. The Clansthal conservancy is located between the Mhlongwana (north) and Mhlongwa (south) rivers with the Umkhomazi area. The Clansthal Conservancy is roughly 2190ha in extent and incorporates some unique coastal biomes which include: Coastal dunes and associated vegetation, steep riverine forest, wetland and swamp forests and beaches. It was formed with the objective of preserving the biodiversity and integrity of the environment.

The Conservancy performs the following functions in the Umkhomazi area: development watch, neighbourhood watch and conservancy watch. In relation to development in the area, the Conservancies work closely and monitor any new or proposed developments taking place within their constituency. Other environmental functions undertaken by the Conservancies include monitoring of the Marine Protected Area off the coast to ensure cleanliness of the local beaches, the removal of alien vegetation and weeds and looking for ways in which to take advantage of the areas suite of environmental goods and services.

The plan proposes the following Land Use/Activity Guidelines:
The Coast

- The existence of the coast is a significant issue influencing the development in the study area and needs to be highlighted as a significant structuring element,
- The natural low intensity character of the study area should be maintained to the largest extent possible, this relates closely to protecting the natural resources of the area,
- To accommodate a reasonable level of the existing development pressures without significantly altering the character and amenity of the area

The plan also proposes the following:
Beach and River Front Activities
To Identify and establish a range of appropriate activities and providing relevant supporting amenities including parking, barbecue, picnic, shower, restrooms etc., typical activities could include swimming, fishing, surfing, jetski, diving etc. this would also include the formalisation and upgrading of the diving launch site, trails and walkways on the southern and northern side of the river and pedestrian linkages to the additional recreational amenities suggested.

Additional Recreation Activities

An area abutting the northern limit of the CBD, in proximity of the Umkhomazi River and a local tributary, appears to be suitable for additional recreational activities, this is suggested to require appropriate vehicular access and pedestrian linkage via the suggested riverfront trail, potential types of recreation will still have to be identified.

The Golf Course Estate has the potential of associating upmarket residential development to the existing golf course has been muted, but will still have to be discussed with the relevant organisations.

Coastal Risk Zone

The Coastal Risk Zone is defined as the combination of the most inland edge of the 1m sea level rise line and the slope failure line associated with 1m sea level rise. This demarcates the Coastal Risk Zone from natural climate change impacts and provides a broad identification of the risk area. The coastal risk zone will be refined through a process of more detailed work through the Shoreline Management Plans which are a legal requirement for our coastline.

3 Coastal Management

The eThekwini coastal zone has, historically, been subject to very little specific, holistic and co-ordinated management and no broad vision and management principles exist for the coast as a whole. This is typically the situation in most of our coastal cities in South Africa. Current management of this resource is fragmented, uncoordinated and to a degree reactive. This is by-and-large as a result of the previous local government system, which resulted in no less than seven local government administrations managing their specific section of the coast and no entity taking overall management responsibility. In addition, within each administration a multitude of departments and line functions existed. Little coordination and integration of effort or approaches took place between these departments, line functions and administrations which has resulted in a fragmented and localised approach to coastal management. This approach in turn led to a situation where no clear authority or responsibility for coastal management existed at a strategic level.

The formation of a Metro alone will not address this historic fragmented management of the coastal zone. The integration of line functions and the recognition that the coastal zone is a distinct management area with specific management needs, is central to the effective protection, enhancement and optimisation of the coastal zone. To ensure that the coastal zone asset of the municipality is protected, enhanced and optimised, a new and integrated approach to coastal management is needed. This requires recognition of the coast as a specific management entity with unique and specific management attributes for which management responsibility must be assigned.

During the restructuring of the organization it became evident that a broad, overarching resource was needed to overcome and draw together the un-coordinated management of the coastal zone across the various clusters within the organization. In addition, as part of the Integrated Development Plan the need to give the coast an elevated profile resulted in the incorporation of specific coastal management plans which need to be developed.

While these are specific elements of the strategy, it was clear that a Coastal Zone Management Strategy needed to be developed to guide all role players both internal and external to Council.
Council has committed itself to developing and implementing a municipality wide Coastal Zone Management Strategy with the aim of protecting, optimising and enhancing this unique and valuable asset. The coast has multiple uses and provides a variety of goods and services to the municipality, its inhabitants and tourists. These goods and services are central to the economy of Durban and its wellbeing and include amongst others –

- Tourism and recreation
- Residential Areas
- Discharge of storm water
- Discharge of wastewater effluent
- Economic and employment opportunities

- Events (e.g. water sports)
- Industrial and commercial uses (e.g. harbour(s) and commercial fishing, restaurants)
- Nutrient supply
- Flood attenuation
- Fish nurseries

The coastline is arguably one of our greatest economic assets and has the potential, if protected and harnessed, to play a significant role in the economic development and prosperity of Durban.
However, this coastal resource is currently facing enormous pressure including –

- Fragmentation and loss of natural areas
- Degradation of terrestrial ecosystems due to inappropriate recreational activities and development
- Loss of indigenous vegetation due to the spread of alien invasive vegetation and inappropriate development
- Erosion and damage to sensitive coastal dune systems
- Areas of poor marine water quality as a result of domestic and industrial wastewater discharges, stormwater discharges and malfunctioning sewerage systems
- Building and infrastructure maintenance problems related to erosion, windblown sand and wave action
- Interference of physical coastal processes caused by development
- Safety and security problems
- Inappropriate development (both form and location)
- Inappropriate and conflicting recreational use
- Litter and waste
- Degrading beach infrastructure and facilities
- Vandalism of beach facilities
- Loss of recreational opportunities and scenic beauty due to sprawling urban development
- Inequalities in access to the coast and associated opportunities
- Lack of access by communities
- Inadequate catchments and estuaries management
- Sediment loss due to dams and sand winning
- Over-consumption of marine resources

Understanding the unique value that the coast offers to Durban and considering the pressures currently on that resource, the eThekwini Municipality is required to take urgent and focused action to reverse the current trends and secure the coastal asset.

Significant opportunity exists to initiate and implement management interventions that will enhance, protect and optimise this resource. However, for this to be successful, an integrated, holistic,

centralised and municipal wide coastal strategy has been adopted, implemented, resourced and championed in terms of the Integrated Coastal Management Act.

3.1 Coastal Management Strategy

In 2012 the Economic Development and Planning Committee and the Infrastructure Committee approved a Coastal Management Strategy which is summarised below.

To be the leading African City that sets the standard of management for the coastal zone as a unique and significant social, economic and environmental asset in the City. To commit to the management of this resource in an innovative and integrated manner while optimising the economic and social benefits.

The goals set out in the strategy are;

- Effective, efficient and transparent management of the coastal zone
- A people first approach while maintaining sustainable development of the coastal zone
- To ensure that Durban continues to remain the premier “surf and sand” destination in the country
- To continue to expand access to some of the best beaches in the world
- The maintenance of an appropriate balance between the built, rural and wilderness coastal areas
- To optimise social and economic benefits from the coastal zone within the constraints of the natural system
- Ensure the sustainable supply of environmental goods and services

Therefore the municipality had focused on 14 key strategic coastal management objectives;

1. Development and implementation of Coastal Management Plans at each of the Coastal Management Areas (3 out of 4 sections of the coast has been completed)
2. KwaZulu-Natal Beach Tourism Plan (provincial policy approved)
3. Coastal Recreation/ Tourism Development Plan (to be started)
4. Estuary Management Plans for each estuary (2 completed, 1 in progress, 13 to be done)
5. Event Management Plans (in progress)
6. Coastal Water Quality Improvements and Blue Flag Programme (in progress)
7. Coastal Legislation and By-law Development (completed, awaiting Council approval)
8. Coastal Education and Awareness (on-going)
9. Sustaining the supply of environmental goods and services (on-going)
10. Managing Development in the Coastal Zone (on-going)
11. Coastal Structures Management and Coastal Engineering (on-going)
12. Sustainable Coastal Livelihoods Programme (Poverty Relief Focussed) (new 3 year contract in place)
13. Climate change planning and adaptation (in implementation)
14. Disaster management and preparedness (in progress)

3.2 Development Guidelines and Tools for Coastal Areas

The following guidelines are intended to encourage appropriate and harmonious coastal development that is sensitive to its coastal context. These guidelines apply to the development of all properties in the coastal zone.

Coastal Management, Erosion and Development Setback Lines

The eThekwini coastline is sandy, with very little rocky shoreline and a wave regime that is considered as high energy which renders the coastline highly susceptible to erosion. Development has also encroached on dune areas which is the primary defence system. The municipality has studied and determined the coastal erosion line and development setback line. The development setback line protects the natural environment from encroachment as well beachfront developments from the effects of storms and accelerated coastal erosion. The implementation of the development setback lines result in a more stable shoreline with allowance for sustainable development on the margin, re-establishment of the natural system after major erosion events and creating more natural looking dunes and vegetation areas on the beaches. The EM does not allow development eastward of the coastal erosion line. Where possible, buildings, infrastructure and facilities should be set back landward of the coastal setback line or foredune ridge. The use of artificial structures should be avoided but where it is impossible to avoid they should be designed to have a minimum impact. The Provincial Coastal Management Unit is currently determining Coastal Management Lines in accordance with the Integrated Coastal Management Act and once approved will supercede the eThekwini Municipality setback lines.

Minimisation of Shadows on Beaches Policy for eThekwini Municipality

In March 2008, Council approved a shadow study to manage the impact of shadows on all future coastal developments in the municipal area so as to ensure that the public's use and enjoyment of the beach and coastal area is maximized. Shadow impacts of buildings are associated with, and can be mitigated by height, orientation and location on the site. The aim of the study was to minimise shadow impacts on beaches and especially the swimming beaches before 4pm midwinter.

The beachfronts of the eThekwini Municipality is one of its key tourism assets and as such sets the context for the policy that future development along the beachfronts needs to ensure that this asset is not undermined. The recreational use of any beach is highly dependent on direct sunlight, and therefore the positioning of developments close to the beach can compromise beach amenity through overshadowing. Current building heights along the city's beachfronts range from 2 to 40 storeys. The shadow impacts of these buildings are associated not only with their height but also their orientation and position on site, some being set back more than others.

There are three types of shadow impacts which are relevant to the whole of eThekwini's coastline:

- overshadowing of the beach in the afternoon,
- overshadowing of properties to the west in the mornings, and
- overshadowing of properties to the south in the middle of the day.

Winter conditions are seen as the worse case scenario - which is when direct sunlight is most wanted, but also when beach overshadowing is most extreme. As the main solar collection period between 10am and 2pm coincides with danger times for sunburn, the solar collection on most beaches, especially swimming beaches, are extended to 4pm in the winter months.

Strategies to limit shadow impacts

To protect the beach from overshadowing in the afternoons, and therefore to ensure that future development does not limit users' enjoyment of a sunny beach, two key strategies have been adopted. These involve limiting the shading period, and restricting the amount of shading in a given area through building orientation and location. The shadow cast in winter is used as the benchmark.

Limit shading period

To encourage sunlight on the beach as long as possible the overshadowing of beaches, especially in swimming beaches, before 4pm in winter is limited. It is expected that new developments will be designed within these limits.

Policy – New coastal development shall not result in shadows before 3pm in midwinter (all beaches) and before 4pm in midwinter (swimming beaches).

Orientation of buildings

Developers should be encouraged to orientate buildings on foreshore sites to minimise shadows, while at the same time maximising beach amenity for inland properties (through improved views) and promoting the passage of sea and land breezes. Buildings should be turned with their long axis running approximately east-west. This would result in a narrower shadow on the beach.

Policy – New development to meet specific orientation requirements to limit impact of shadows before 3pm (all beaches) and 4pm (swimming beaches) in midwinter.

Policy directives – minimisation of shadows on beaches

Development in the coastal zone should be limited both in height and linear extent to minimise shadow impacts. In areas where development is permitted, developers are required to submit accurate shadow projections, including the effects of topography, to ensure that the rights of landowners to the south are not infringed, and that sufficient beach area remains unshaded on winter afternoons. The following aspects should be assessed:

Shadow impact assessments

Shadow projections should show shadows cast by the proposed development at 3pm and 4pm at midwinter to assess overshadowing impacts on the beach.

Policy – All new buildings in the coastal zone are required to undertake shadow impact assessments.

Limits to shading period

If the shadow impact assessment indicates that expected shadows lie across significant areas of the beach, such as tidal pools and bathing areas, the proposal should be modified to meet the policy requirement outlined below. Developers are required to place the tallest part of the building furthest

from the beach, to the west.
Policy – That all new buildings in the coastal zone that cause shadows on beach amenities not be approved unless it can be shown that the shadows are not apparent on the beach before 4pm in midwinter (swimming beaches) and 3pm in midwinter (all beaches).

Reduce shadow impacts on southerly neighbours
Shadow projections should be produced to show that the rights of southerly neighbours to direct sunlight during the solar collection period are not compromised, for example swimming pools and garden areas.
Policy – That all new buildings in the coastal zone will be required to undertake shadow impact assessments that indicate impacts on southerly neighbours.

Orientation and location of buildings
Where existing development potential in terms of the Town Planning Scheme permits height that will lead to overshadowing, negotiation is recommended for the relaxation of other rights (e.g. relaxation of building lines, increased bulk ratios) so that the optimum development of the site can take place. This should include minimisation of overshadowing to the south by limiting the height of the tallest part of the proposed buildings and situating them on the north end of the site; minimising overshadowing on the beach by orienting the long face of the building between 45° and 60° east of north, and restricting the bulk to the west of the site.

Policy – All developments in the coastal zone should minimise overshadowing on southern neighbours and the beach through attention to orientation and the situation of tall buildings. Associated relaxation of development controls such as side space and building lines should be considered in order to facilitate minimised shadow impacts on beach amenity.

D'MOSS
The Durban Metropolitan Open Space System, along with the continuously updated work undertaken by the Environmental Planning and Climate Protection Department (EPCPD) identifies land that is environmentally sensitive and provides environmental goods such as food, fuel and medicines and services such as erosion control, reduction of flooding and the supply of clean water.

Stormwater Management
There should be management of increased stormwater flows as a result of hardened surfaces to limit erosion and flooding and reduce stormwater costs. Surface runoff should not exceed the ability of natural drainage and infrastructure systems to handle runoff. Water runoff should be managed at source such as in catchments and on site before it reaches a stream. A river setback should be established to encourage river vegetation which will retard water flow and absorption. The municipality requires on-site stormwater management as well as for larger developments to have stormwater management plans.

Floodlines

The eThekwini Municipality prohibits any development within the 1:100 year floodline. A setback for floodline areas should be established and planted with suitable vegetation. There should be compatible land uses next to floodplains such as grazing of stock and low key recreational activities such as picnicking, birdwatching and carefully planned sport facilities.

Wetlands

Wetlands play a vital role in flood attenuation, supply and cleansing of water and the protection of biodiversity. Development should identify, delineate as well as buffer wetlands and strive to retain and rehabilitate such areas. Developers are required to carry out environmental impact assessments on development that impacts on wetlands.

Sand mining/winning

No sand winning shall occur without a Consent Use Permit from the Municipality and is subject to authorization by the Department of Mineral and Energy Affairs and any environmental authorization in terms of relevant legislation or as required by the Municipality. If the proposed sand winning is on communally held land the application is also subject to the written authority of both the relevant Inkosi and the Ingonyama Trust.

Sea Level Rise

Sea level rise modelling has been undertaken that provides sea level rise and slip failure projections for the 300mm, 600mm and 1000mm sea level rise scenarios. The modelling is currently used to inform development applications along the coast that required that environmental impact assessment be undertaken. Further detail on sea level rise modelling may be found under Section 2.11 Disaster Management.

3.3 Coastal Access

Section 23 of the Integrated Coastal Management (ICM) Act of 2008 requires that all local governments ensure adequate public access to the shoreline. In 2011, the Coastal Stormwater and Catchment Management (CSCM) Department, eThekwini Municipality, embarked on the formal management of all Coastal Accesses within its 97km coastline.

The first task was to identify all existing types of accesses. After considering all available tools, the most beneficial tool identified, was the use of GIS software. After a six month process of creating the database; populating it by means of a desktop survey, workshops and ground truthing of data, 600 access points were identified.

The intention is that the information captured be sequentially presented to various stakeholders. Thereafter an informed decision to either close, open or rehabilitate a coastal access point may be

better facilitated. The decisions, once made, can almost immediately be added to the Coastal Accesses Database.

To date, (December 2015) CSCM has engaged with the eThekwini Municipality Parks and Recreation Department and the Environmental Planning and Climate Protection Department. There are numerous processes that are still to be undertaken and several departments that still need to be engaged with before formalisation of the access points. It is expected that there will be a 90% confidence level reached in the database before the end of 2016.

ANNEXURE 12: AEROTROPOLIS

1. INTRODUCTION

The KwaZulu-Natal Provincial Government has, through the Department of Economic Development, Tourism and Environmental Affairs (EDTEA), adopted the Aerotropolis concept, which informed the development of the Dube Trade Port and the relocation of the Durban International Airport to the new King Shaka International Airport (KSIA). In order to expand on the initial phase of developing an Aerotropolis around Dube Trade Port, the EDTEA initiated the process of preparing a comprehensive KZN Integrated Aerotropolis Strategy (KZNIAS) for the Province during 2013, which was adopted by the KwaZulu-Natal Executive Council in October 2014. One of key recommendations of the KZNIAS is the preparation of a Master Plan.

2. BACKGROUND

2.1. WHAT IS AN AEROTROPOLIS?

A new strategic approach to airport planning and associated industrial and commercial land-use is gaining prominence around the world. This is the Aerotropolis model. **An Aerotropolis is a city built around an airport offering its businesses speedy connectivity to their suppliers, customers and enterprise partners nationally and worldwide**. These businesses, many in the high-tech and high-value service sectors, are often more dependent on distant suppliers and customers, than those located in their own metropolitan region.

Spines, nodes, and clusters of aviation-linked business and residential complexes, are forming along airport transportation corridors leading outwards from some airports, with significant economic impact - measured up to 1 hour travel time away. Typical land uses include:

- Office buildings and technology parks;
- Logistics and distribution centres;
- Industrial estates and light manufacturing;
- Retail centres and wholesale merchandise marts;
- Information and communications technology complexes;
- Bioscience and medical facilities;
- Higher education campuses;
- Hotel, convention, tourism and entertainment complexes;
- Large mixed-use residential orientated developments; and
- Airport “Edge Cities” (e.g., Amsterdam, Zuidas; Las Colinas, Texas; New Songdo IDB).

The Aerotropolis Model can be summarised as follows:

- Primary objective: Enhancing urban and national competitiveness through improved multi-modal transport access and planned, coordinated aviation-linked commercial development, making the

airport, surrounding areas, and the entire province more economically efficient, attractive, and sustainable;

- Key value proposition: Offers businesses located near or with good access to the airport speedy connectivity to their suppliers, customers, and enterprise partners nationally and worldwide;
- Contains the full set of cargo and commercial facilities that support airlines and aviation-linked businesses, as well as air travellers;
- An Airport City developed at and immediately around the airport, serving the multimodal, multi-functional commercial core of the Aerotropolis anchoring aviation-enabled trade in goods and services, and driving it throughout the province.

2.2 KZN INTEGRATED AEROTROPOLIS STRATEGY (KZNIAS)

The KZNIAS is the culmination of an extensive consultative process and research into the viability of developing an Aerotropolis, anchored around the King Shaka International Airport and the Dube Trade Port. This strategy is premised on ten strategic levers, grouped into 3 pillars, viz.:

a. **Foundational Pillar:** This pillar drives the viability of an Aerotropolis and the 3 strategic levers within this pillar are as follows:

- ***Growing Air Services and Connectivity*** – An ideal Aerotropolis is characterised by an international airport that sees well over 10 million passengers and is connected to major international hubs like those in North America, South America, Europe, the Middle East, Asia, Africa, and South East Asia.

- ***Integrated and Coordinated Spatial Planning*** – Whilst air services define the functionality of the Aerotropolis, this lever has a lot to do with its urban or physical form. Given the fact that most Aerotropolises cut across municipal and sometimes provincial boundaries, the need to coordinate spatial planning amongst various municipalities is imperative. In the case of the KZN Aerotropolis, the municipalities of Ethekwini, Msunduzi and KwaDukuza will have to integrate their Spatial Development Frameworks (SDFs) and future planning has to be coordinated centrally to the extent that such planning includes the designated Aerotropolis area.

- ***Equitable and Inclusive Growth*** – The so-called “triple challenges” facing this country, viz. Unemployment, Poverty and Inequality, has largely been fuelled by the economic divide that has been keeping the majority of South Africans out of the mainstream economy. Whilst this strategic lever would not be categorized as Foundational in other developed economies, it is nonetheless an imperative in the case of South Africa.

b. **Core Pillar:** This second pillar is important in the medium to long term in that it supports and sustains economic growth in the Aerotropolis. The strategic levers under this pillar include the following:

- ***Business Growth and Development*** – The Aerotropolis has to be attractive to businesses that seek to locate near an international airport that is connected to various international destinations. Therefore the success of an Aerotropolis will be measured by its ability to attract new foreign direct investments from those multinational corporations that are defined by "economies of speed to market". This strategic lever is all about positioning the KZN Aerotropolis in that regard.

- ***Knowledge Support and Human Capital*** – One of the main considerations for locating a business is the availability of sector-specific skilled labour that can be deployed at relatively competitive rates. This strategic lever deals with the manner in which the KZN Aerotropolis will deal with issues like shortage of skilled labour and/or how this labour can be attracted or retained for the local economic growth.

- ***Integrated Multimodal Transport Networks*** – Global economies thrive not only on connectivity, but also on integration, and multimodal transportation is an enabler in this regard. The efficiency of air travel is largely affected by the ease of travel between one's departure point to the departure airport and from the destination airport to the final destinations, the so-called first and last miles of air travel. This strategic lever identifies the areas that need to be improved to make the ground transportation of goods and passengers smooth and efficient.

c. **Support Pillar:** The support pillar serves to strengthen the other pillars, and whilst not specific to the Aerotropolis, it nevertheless supports various economic activities therein. The following strategic levers have been identified under this lever:

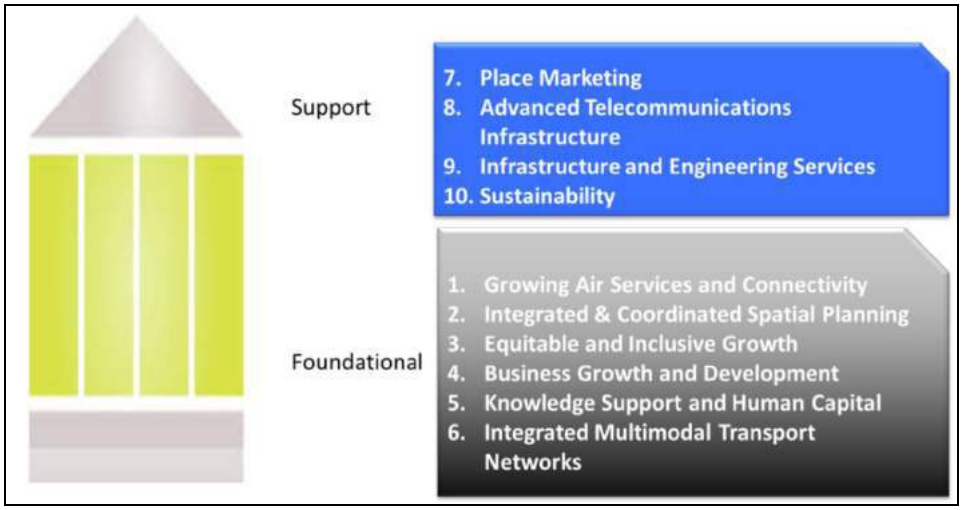
- ***Place Marketing*** – This strategic lever is about the marketability of the Aerotropolis and it's positioning in the eyes of potential investors, tourists, airlines, etc.

- ***Advanced Telecommunications Infrastructure*** – The growing importance of telecommunications technology is fast becoming a major contributor to the economic growth of global city economies. In this strategic lever the issues of cost, internet speed and accessibility are addressed.

- ***Infrastructure and Engineering Services*** – Inadequate and ageing bulk infrastructure is stifling economic growth in all three municipalities of Ethekwini, Msunduzi and KwaDukuza. Unless the backlogs in infrastructure, provision for water, sanitation, municipal roads, storm water and electricity are addressed soon, the development of the Aerotropolis could be negatively impacted.

- ***Environmental Sustainability*** – This strategy not only looks at environmental, but also institutional, economic, and social drivers of sustainability.

Figure 1: the KZNIAS Strategy Pillars



3. DURBAN AEROTROPOLIS MASTER PLAN (DURAMP)

3.1 Approach

An Aerotropolis assumes multiple forms:

- A **Functional Form** that is non-spatial;
- A **Physical Form** that manifests a spatially observable development;
- A series of **Connections/Linkages** - Air Routes, Highways, Rail Networks and Links to Ports.

The KZN Integrated Aerotropolis Strategy (KZNIAS) has laid down a framework for the strategic direction that shapes these three forms. The next phase of work is to give substance to each of the above-mentioned forms and to each of the KZNIAS pillars. This, in essence, is the brief for the Durban Aerotropolis Master Plan (DURAMP). The boundaries of the study area should be overlaid onto current patterns of land use and physical topography, to generate a new realigned perspective on the planning philosophy of the entire Aerotropolis sub-region. Current plans (SDFs, Transport Plans, and Economic Strategies) for the study area should be reviewed and recommendations tabled for amendments, realignments and reprioritisation.

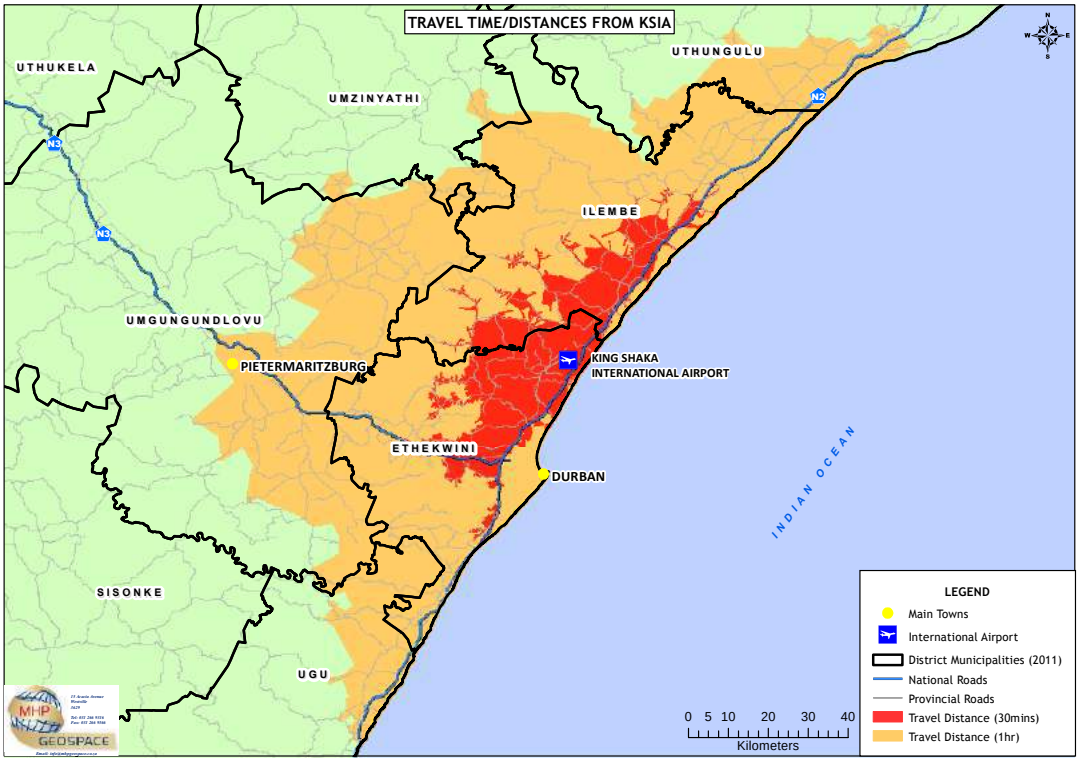
The project proposes to prepare a Master Plan for the Durban Aerotropolis study area (see **Figure 2**), aligned with the KZNIAS, and with “Aerotropolis” / “airport city” development principles.

3.2 STUDY AREA

“Time” is the currency of the Aerotropolis. Consequently, the study area for the DURAMP is defined not by a fixed physical boundary, but by a more fluid 1-hour travel time radius measured from King Shaka International Airport, that will expand over time as transport links improve and travel times improve. The study area, as currently defined, is concentrated primarily within the boundaries of

eThekwini Municipality and iLembe District Municipality, expanding also into parts of uMgungundlovu, uThungulu and uGu Municipalities.

Figure 2: The Current DURAMP Study Area



Situated within the Aerotropolis study area is the Airport City (Core Aerotropolis). The Airport City (see **Figure 3**), is the area spanning from uMhlanga Ridge to Ballito in the North, and from Phoenix and Tongaat to the West of the N2 motorway. Extensive planning work has already been undertaken for this area by Dube Trade Port and Tongaat Hulett, which has been further built upon in the Northern Urban Development Corridor Framework undertaken by the City of eThekwini.

Figure 3: the Airport City (Core Aerotropolis)



3.2.1 MASTER PLAN

The Master Plan should comprise of development proposals, strategies and guidelines to translate the findings, as derived from the Spatial and Economic Analysis and Synthesis process, spatially and in terms of infrastructure requirements. Furthermore, the master plan will be the framework on which future project planning will take place. Every concept in the master plan should be based upon the ten Strategic Levers of the KZNIAS.

The Master Plan should consist of *inter alia* the following components:

- Objectives;
- Principles;
- Spatial proposals and strategies; and
- Policies and guidelines supporting the proposals and strategies.

The DURAMP will include the following key **deliverables**:

- *Land Use Plan*
- *Integrated Aerotropolis Transport Plan*
- *Smart Aerotropolis Master Plan* (adapted using the Smart City Concept)
- *Integrated Infrastructure Plan*
- *Economic Development Plan*
- *High level Environmental Framework*
- *Place-making strategy*

3.2.2 ANTICIPATED TIMEFRAMES

The anticipated completion of the DURAMP is August 2016 and the associated Implementation Plan due for completion by December 2016.

ANNEXURE 13: HOUSING MAPS AND LISTS

LIST OF ATTACHMENTS

a) MTEF LIST OF HUMAN SETTLEMENTS PROJECTS (INCLUDING HOUSING, INFRASTRUCTURE AND INCREMENTAL SERVICES
b) MAP: 2016/2017 BNG PROJECTS
c) MAP: 2017/2018 BNG PROJECTS
d) MAP: 208/2019 BNG PROJECTS
e) LIST OF INFORMAL SETTLEMENTS
f) LIST OF GREENFIELD PROJECTS
g) LIST OF SOCIAL HOUSING PROJECTS
h) LIST OF SPECIAL HOUSING PROJECTS

Review of Coordinates Provided by Service Units

MTEF LIST OF HUMN SETTLEMENTS PROJECTS

Headings, totals	Unit	Project name	Wards	GPS co-ord.	Processed Southing / Latitude (Decimal Degrees)	Processed Easting / Longitude (Decimal Degrees)	Benefiting Wards	Approved FY 2016-17 Rm	Proposed FY 2016-17 Rm	Proposed FY 2017-18 Rm	Proposed FY 2018-19 Rm
TOTAL Housing	**TOTAL HOUSING**								**1200.400**	**1137.686**	**1172.727**
	Housing	Cornubia Ph 1B(2)	102	Long = 31° 2' 18.355", Lat =29° 41' 32.038"	-29.6922328	31.03843194		10.000	10.000	0.000	0.000
	Housing	Cornubia Ph 1B(3)	102	Long = 31° 2' 19.956", Lat =29° 41' 13.484"	-29.6870789	31.03887667		10.100	10.100	0.000	0.000
	Housing	Cornubia Phase 2	102	Long = 31° 3' 33.583", Lat = 29° 41' 18.167"	-29.6883797	31.05932861		0.000	0.000	0.000	49.427
	Housing	Amaoti Cuba	53	Long = 30° 59' 47.514", Lat = 29° 40' 34.179"	-29.6761608	30.99653167		12.400	12.400	13.206	0.000
	Housing	Burlington Greenfields - Extension	65, 71	Long = 30° 53' 23.254", Lat = 29° 53' 34.832"	-29.8930089	30.88979278		6.000	6.000	8.000	15.000
	Housing	Cato Crest Insitu Upgrade	101, 30	Long = 30° 58' 32.312" , Lat = 29° 51' 10.294"	-29.8528594	30.97564222		10.000	10.000	13.000	15.000
	Housing	Craighban	99	Long = 30° 44' 49.703", Lat = 30° 11' 41.676"	-30.19491	30.74713972		6.000	6.000	10.000	0.000
	Housing	Dodoza	95, 67	Long = 30° 50' 1.962", Lat = 29° 59' 27.386"	-29.9909406	30.83387833		15.000	15.000	15.000	0.000

	Housing	Ekwandeni Phase 1	6, 7, 91	Long = 30° 38' 52.630" , Lat = 29° 50' 15.601"	-29.8376669	30.64795278		10.000	10.000	15.000	15.000
	Housing	Emapheleni Phase 1	22	Long = 30° 53' 53.710", Lat = 29° 47' 3.818"	-29.7865886	30.90573306		1.000	1.000	0.000	0.000
	Housing	Emapheleni Phase 2	22	Long = 30° 54' 20.639", Lat = 29° 47' 11.719"	-29.7865886	30.90573306		0.000	0.000	0.000	5.000
	Housing	Emaphephethweni	2	Long = 30° 47' 42.621", Lat = 29° 37' 20.695"	-29.6224153	30.7951725		15.000	15.000	16.000	20.000
	Housing	Etafuleni Ph 1	56, 53	Long = 30° 57' 21.701", Lat = 29° 40' 16.197"	-29.6711658	30.95602806		6.500	6.500	28.000	32.000
	Housing	Inkanyezi	17, 16	Long = 30° 51' 33.339", Lat = -29° 52' 24.170"	-28.1266194	30.85926083		12.000	12.000	0.000	0.000
	Housing	Isandlwana Umlazi Ward B10 (Unit F, G & H)	79	Long = 30° 52' 44.784", Lat = 29° 56' 56.062"	-29.9489061	30.87910667		0.300	0.300	0.300	0.000
	Housing	Kennedy Road	25	Long = 30° 58' 47.059", Lat = 29° 48' 41.228"	-29.8114522	30.97973861		14.500	14.500	10.000	25.000
	Housing	Kingsburg West Phase 2	98	Long = 30° 50' 46.492", Lat = 30° 4' 26.721"	-30.0740892	30.84624778		0.000	0.000	0.000	20.000
	Housing	Klaarwater	63, 16	Long = 30° 51' 27.227", Lat = 29° 51' 35.479"	-29.8598553	30.85756306		11.100	11.100	5.000	0.000
	Housing	Klaarwater Station	63, 16	Long = 30° 51' 41.677", Lat = 29° 51' 28.850"	-30.0740892	30.86156556		15.000	15.000	15.000	0.000
	Housing	Kloof Extension 15 & 21 Phase 3	19	Long = 30° 53' 20.390", Lat = 29° 46' 38.803"	-29.7774453	30.88899722		13.400	13.400	7.000	0.000

	Housing	KwaMakhutha Wire-Wall	94	Long = 30° 51' 30.026", Lat = 30° 1' 56.476"	-30.0323544	30.85834056		10.000	10.000	12.000	0.000
	Housing	Lamontville Ministerial	74	Long = 30° 56' 4.042", Lat = 29° 56' 28.569"	-29.9412692	30.93445611		11.600	11.600	7.800	0.000
	Housing	Lower Thornwood Phase 1	13, 14	Lon 30° 48' 16.951", = Lat = 29° 52' 0.035"	-29.8666764	30.80470861		2.000	2.000	0.000	0.000
	Housing	Mini Town Phase 2	6	Long = 30° 37' 50.085", Lat = 29° 47' 52.386"	-29.797885	30.63057917		2.000	2.000	0.000	10.000
	Housing	Molweni Lower	9	Lon = 30° 52' 37.199", Lat = 29° 45' 17.448"	-29.7548467	30.87699972		1.000	1.000	8.000	12.000
	Housing	Mona Sunhills	61,62	Long = 31° 6' 19.074", Lat = 29° 33' 4.275"	-29.7165689	30.92749583		12.000	12.000	14.000	16.000
	Housing	Mpola 1 & 2	15	Long = 30° 48' 32.468", Lat = 29° 51' 4.239"	-29.8511775	30.80901889		2.000	2.000	0.000	0.000
	Housing	Mpola Ph 3	15	Long = 30° 48' 40.855", Lat = 29° 51' 27.797"	-29.8577214	30.81134861		1.000	1.000	10.000	14.000
	Housing	Mpumalanga Unit G	6	Long = 30° 38' 6.715", Lat = 29° 48' 59.809"	-29.8166136	30.63519861		7.000	7.000	0.000	0.000
	Housing	Njobokazi - Mtamtengwo	7	Long = 30° 38' 40.872", Lat = 29° 52' 35.694"	-29.8765817	30.64468667		0.800	0.800	8.000	14.000
	Housing	Nkanku road	90	Long = 30° 55' 17.969", Lat = 29° 59' 17.509"	-29.9881969	30.92165806		5.000	5.000	9.000	0.000
	Housing	Ntuzuma C Phase 1	38	Long = 30° 56' 20.796", Lat = 29° 44' 13.795"	-29.7371653	30.93911		0.100	0.100	0.100	0.000

	Housing	Ntuzuma C Phase 2	45, 38	Long = 30° 56' 23.688", Lat = 29° 44' 34.464"	-29.7429067	30.93991333		2.000	2.000	6.000	0.000
	Housing	Ntuzuma D Phase 2 & 3	43	Long = 30° 55' 33.418", Lat = 29° 44' 5.242"	-29.7347894	30.92594944		15.000	15.000	10.000	10.000
	Housing	Ntuzuma G Infill	55	Long = 30° 57' 8.154", Lat = 29° 43' 8.314"	-29.7189761	30.952265		0.500	0.500	5.000	13.000
	Housing	Oakford Priory	59	Long = 30° 59' 51.609", Lat = 29° 36' 19.132"	-29.6053144	30.99766917		25.000	25.000	22.000	10.000
	Housing	Old & New Dunbar	29	Long = 30° 57' 48.323", Lat = 29° 51' 17.038"	-29.8547328	30.96342306		8.000	8.000	0.000	0.000
	Housing	Redcliffe Phase 1	60	Long = 31° 1' 54.981", Lat = 29° 37' 28.628"	-29.6246189	31.03193917		7.000	7.000	11.000	12.000
	Housing	Richmond Farm A and B	38	Long = 30° 56' 50.161", Lat = 29° 45' 48.687"	-29.7635242	30.94726694		4.500	4.500	8.000	0.000
	Housing	Rosefontein	24	Long =30° 56' 3.214", Lat = 29° 51' 32.321"	-29.8589781	30.93422611		0.150	0.150	0.000	0.000
	Housing	Roseneath gardens	99	Long = 30° 44' 39.678", Lat = 30° 11' 36.861"	-30.1935725	30.744355		0.000	0.000	4.000	0.000
	Housing	Sandton Phase 2	12/14	Long = 30° 46' 48.628", Lat = 29° 51' 33.208"	-29.792745	30.78017444		7.000	7.000	9.000	12.000
	Housing	Sandton Phase 3	12	Long = 30° 46' 16.197", Lat = 29° 51' 1.399"	-29.8503886	30.77116583		7.000	7.000	14.000	20.000
	Housing	Stop 8 Namibia	108, 44, 56	Long = 30° 56' 14.222", Lat = 29° 42' 8.164"	-28.2977322	30.93728389		4.000	4.000	8.000	10.000

	Housing	Thambo Plaza	57	Long = 30° 57' 56.950", Lat = 29° 41' 47.010"	-29.6963917	30.96581944		1.000	1.000	0.000	0.000
	Housing	Tshelimnyama Ph 4	15	Long = 30° 47' 44.240", Lat = 29° 50' 4.322"	-29.8345339	30.79562222		6.000	6.000	14.000	16.000
	Housing	Umbhayi Housing Project : Phase 1	61	Long = 31° 5' 19.687", Lat = 29° 34' 25.920"	-29.5738667	31.08880194		12.000	12.000	12.000	15.000
	Housing	Umlazi S 1 2&3	88	Long = 30° 54' 53.992", Lat = 29° 57' 59.539"	-29.9665386	30.91499778		0.000	0.000	0.000	15.000
	Housing	Umlazi Infill Phase 1 Part 4	85	Long = 30° 53' 16.078", Lat = 29° 58' 0.326"	-29.9667572	30.88779944		45.650	45.650	40.000	32.000
	Housing	Umlazi Infill Project, Phase 2	87	Long = 30° 53' 40.871", Lat = 29° 58' 59.361"	-29.9831558	30.89468639		8.000	8.000	3.880	0.000
	Housing	Umnini Zone 3	98	Long = 30° 49' 14.177", Lat = 30° 9' 14.193"	-30.1539425	30.82060472		10.000	10.000	0.000	0.000
	Housing	Welbedaght East	77, 72	Long = 30° 51' 16.740", Lat = 29° 55' 48.065"	-29.9300181	30.85465		0.000	0.000	6.000	16.000
	Housing	Woody Glen Phase 1	91	Long = 30° 37' 5.290" E, Lat = 29° 49' 32.447"	-29.8256797	30.61813611		19.000	19.000	6.000	0.000
	Housing	Zamani 1b & 2b	91	Long = 30° 37' 31.534", Lat = 29° 50' 6.661"	-29.8351836	30.62542611		6.000	6.000	12.000	15.000
	Housing	Fire Damage	1		-29.689	30.6283		5.000	5.000	5.000	2.000
	Housing	Northern Storm	2,8					3.500	3.500	3.000	2.000

	Housing	Southern Storm	94,95					3.000	3.000	3.000	2.000
	Housing	Western Storm	96, 98					3.000	3.000	3.000	2.000
	Housing	Inanda Dam	2, 3, 8, 9, 56,	Long = 30° 52' 16.945" E, Lat = 29° 40' 47.241" S	-29.854	30.7695		11.000	11.000	17.000	0.000
	Housing	Amahlongwa Rural Housing Project	98,99	Long = 30° 43' 29.400", Lat = 30° 12' 55.460"	-30.2154056	30.72483333		5.000	5.000	15.000	15.000
	Housing	Dassenhoek Block A & C	14, 12	Long = 30° 46' 44.817", Lat = 29° 50' 16.705"	-29.8379736	30.77911583		12.000	12.000	15.000	16.000
	Housing	Dikwe - Masakhane	55, 107	Long = 30° 57' 44.099", Lat = 29° 42' 47.278"	-29.7131328	30.96224972		5.000	5.000	8.000	15.000
	Housing	Emalangeni Phase 3	7, 6	Long = 30° 39' 45.675", Lat = 29° 49' 17.756"	-29.8215989	30.6626875		15.000	15.000	15.000	15.000
	Housing	Embo	8	Long = 30° 47' 8.160", Lat = 29° 44' 19.062"	-29.7386283	30.7856		10.000	10.000	15.000	25.000
	Housing	Inanda Mission Reserve(Mqhawe)	3, 44, 108, 56	Long = 30° 53' 46.467", Lat = 29° 41' 15.806"	-29.6877239	30.89624083		8.000	8.000	22.000	2.000
	Housing	Kwalinda (12)	12	Long = 30° 45' 59.317", Lat = 29° 50' 30.769" S	-29.8418803	30.76647694		5.000	5.000	8.000	0.000
	Housing	KwaXimba Ph 1	1	Long = 30° 38' 6.251", Lat = 29° 39' 56.389"	-29.6656636	30.63506972		15.000	15.000	7.000	0.000
	Housing	KwaXimba Phase 2	1, 4	Long = 30° 37' 47.960", Lat = 29° 40' 33.293"	-29.6759147	30.62998889		8.000	8.000	15.000	15.000

	Housing	Ngcolosi Rural	8, 9, 2	Long = 30° 50' 16.790", Lat = 29° 41' 52.996"	-29.6980544	30.83799722		18.000	18.000	20.000	20.000
	Housing	Nsimbini Rural	29	Long = 30° 57' 15.410", Lat = 29° 51' 16.942"	-29.8547061	30.95428056		14.500	14.500	15.000	0.000
	Housing	Qiniselani Amanyuswa	2, 103, 8	Long 30° 45' 26.207" = , Lat = 29° 40' 29.765"	-29.6757497	30.76044111		5.000	5.000	10.000	15.000
	Housing	Sobonakhona Phase 1	96	Long = 30° 47' 42.555", Lat = 30° 1' 9.365"	-30.0192681	30.79515417		26.000	26.000	26.000	30.000
	Housing	Vumengazi	100, 72	Long = 30° 48' 1.688", Long = 29° 55' 53.999"	-29.9316664	30.80046889		12.000	12.000	12.000	12.000
	Housing	Vumengazi/Ngoyameni Rural	100, 72	Long = 30° 48' 2.250", Lat = 29° 55' 53.893"	-29.9316369	30.800625		7.000	7.000	15.000	0.000
	Housing	Bhambayi phase 1 extension	52, 57	Long = 30° 58' 30.928", Lat = 29° 42' 20.879"	-29.7057997	30.97525778		1.200	1.200	3.000	15.000
	Housing	Bux Farm	103	Long = 30° 41' 26.990", Lat = -29° 48' 41.645"	-28.1884319	30.69083056		0.500	0.500	0.000	0.000
	Housing	Cornubia Phase 2	35, 102	Long = 31° 3' 33.583", Lat = 29° 41' 18.167"	-29.6883797	31.05932861		15.000	15.000	20.000	0.000
	Housing	Kingsburgh West Phase 2	98	Long = 30° 50' 46.492", Lat = 30° 4' 26.721"	-30.0740892	30.84624778		1.000	1.000	0.000	0.000
	Housing	Kenville	34	Long = 31° 0' 10.313", Lat = 29° 47' 34.117"	-29.7928103	31.00286472		0.800	0.800	10.000	0.000
	Housing	Kloof Ext 11 - Domestic	19	Long = 30° 53' 18.448", Lat = 29° 46' 19.647"	-29.757	30.964		0.500	0.500	0.000	0.000

	Housing	Kloof Extension 15 & 21 Phase 3	19	Long = 30° 53' 20.390", Lat = 29° 46' 38.803"	-29.7774453	30.88899722		3.000	3.000	13.000	15.000
	Housing	Lower Thornwood Phase 2	13, 14	Long = 30° 48' 26.218", Lat = 29° 51' 51.956"	-29.8644322	30.80728278		0.500	0.500	0.000	0.000
	Housing	Lower Malukazi	89, 90	Long = 30° 54' 2.251", Lat = 29° 59' 57.580"	-29.9993278	30.90062528		2.000	2.000	3.000	0.000
	Housing	Motala Heights	15	Long = 30°49'58.652", Lat = 29°48'18.397"	-29.5490506	31.11526639		5.000	5.000	0.000	5.000
	Housing	New Germany Lot 89	21	Long = 30° 53' 9.190", Lat = -29° 47' 20.900"	-28.2108611	30.88588611		0.500	0.500	0.000	0.000
	Housing	Primeyridge	23	Long = 30° 56' 37.443", Lat = 29° 47' 30.227"	-29.7917297	30.94373417		0.500	0.500	0.000	0.000
	Housing	Umlazi S 1 2 & 3	88	Long = 30° 54' 53.992", Lat = 29° 57' 59.539"	-29.9665386	30.91499778		5.000	5.000	5.000	0.000
	Housing	Ridgeview lane	29	Long = 30° 56' 55.992", Lat = 29° 52' 4.539"	-29.893	30.9288		1.000	1.000	0.500	0.000
	Housing	Lovu 259	98	Long = 30° 49' 42.984", Lat = 30° 3' 39.662"	-30.0610172	30.82860667		0.700	0.700	0.000	0.000
	Housing	Roseneath gardens	99	Long = 30° 44' 39.678", Lat = 30° 11' 36.861"	-30.1935725	30.744355		0.600	0.600	0.000	0.000
	Housing	Welbedaght east	77, 72	Long = 30° 51' 16.740", Lat = 29° 55' 48.065"	-29.9300181	30.85465		3.000	3.000	0.000	0.000
	Housing	Zwelibomvu/Isimahla RHP	100, 7	Long =3 0° 43' 14.656" , Lat = 29° 53' 11.631"	-29.8865642	30.72073778		1.000	1.000	10.000	15.000

	Housing	Zwelibomvu/Vumazonke RHP	100, 7	Long =3 0° 43' 14.656" , Lat = 29° 53' 11.631"	-29.8865642	30.72073778		0.500	0.500	10.000	15.000
	Housing - Hostels	Umlazi T	89	Long = 30° 54' 27.251", Lat = 29° 58' 36.578"	-29.9768272	30.90756972		12.000	12.000	0.000	0.000
	Housing - Hostels	Kranskloof	20, 22	Long = 30° 54' 1.131", Lat = 29° 46' 43.301"	-29.7786947	30.90031417		8.000	8.000	0.000	0.000
	Housing - Hostels	Umlazi Glebelands	76	Long = 30° 56' 14.642", Lat = 29° 57' 44.599"	-29.9623886	30.93740056		8.000	8.000	0.000	0.000
	Housing - Hostels	SJ Smith	75	Long = 30° 56' 59.257", Lat = 29° 56' 56.000"	-29.9488889	30.94979361		3.000	3.000	0.000	0.000
	Housing - Hostels	KwaMashu	39, 46, 104	Long = 30° 59' 50.901", Lat = 29° 44' 36.268"	-29.7434078	30.9974725		10.000	10.000	0.000	0.000
	Housing - Hostels	Dalton	32	Long = 31° 0' 16.855", Lat = 29° 51' 56.275"	-29.8656319	31.00468194		4.000	4.000	0.000	0.000
	Housing - Hostels	KwaMakhutha	94	Long = 30° 51' 31.524", Lat = 30° 1' 55.804"	-30.0321678	30.85875667		7.000	7.000	0.000	0.000
	Housing - Hostels	Thokoza	28	Long = 31° 0' 54.656", Lat = 29° 51' 0.057"	-29.8500158	31.01518222		8.000	8.000	0.000	0.000
	Housing - Infrastructure	Amaoti Cuba (Phase 1 & 4)	53	Long = 30° 59' 47.514", Lat = 29° 40' 34.179"	-29.6761608	30.99653167	53	11.760	11.760	0.000	0.000
	Housing - Infrastructure	Belverde Extension	61	Long = 31° 5' 4.088", Lat = 29° 34' 16.413"	-29.5712258	31.08446889	61	0.500	0.500	0.000	0.000

	Housing - Infrastructure	Burlington Greenfields - Extension	77,78,80,85, 86,88	30°53'46.986"E 29°53'33.549"S	-29.892652	30.896385		8.000	12.700	0.000	0.000
	Housing - Infrastructure	Cato Crest Insitu Upgrade	77,78,80,85, 86,88 -101	Long = 30° 58' 12.4716'', Lat = 29° 51' 16.4808''	-29.8528594	30.97564222		10.000	19.000	0.000	0.000
	Housing - Infrastructure	Ekwandeni Ph1	7/92	30°38'54.288"E 29°49'37.992"S	-29.82722	30.648413		10.700	6.000	15.000	72.300
	Housing - Infrastructure	Emapheleni Phase 2 Lot 3548	22	30°53'52.377"E 29°47'7.948"S	-29.785541	30.897883		0.000	0.000	15.300	24.700
	Housing - Infrastructure	Etafuleni Ph 1A	56/59/53	Long = 30° 57' 21.701", Lat = 29° 40' 16.197"	-29.6711658	30.95602806	56/59/53	21.290	29.000	22.000	0.000
	Housing - Infrastructure	Etafuleni Ph 1B-3	56/59/53	Long = 30° 57' 21.701", Lat = 29° 40' 16.197"	-29.6711658	30.95602806	56/59/53	18.000	22.790	17.000	15.000
	Housing - Infrastructure	Ezimbokodweni (Emplangweni)	93	Long = 30° 52' 53.3028'', Lat = 30° 0' 49.7340''	-30.0150706	30.88523778		0.000	7.450	13.000	2.100
	Housing - Infrastructure	Kloof extension 15 & 21 (KwaBhontshisi)	19	30°53'15.14"E 29°46'45.287"S	-29.779246	30.887539		15.000	15.000	15.000	5.000
	Housing - Infrastructure	Lamontville Informal settlement	74/76/70	29° 56' 29.7240'' S30° 56' 19.9248'' E	-29.9433872	30.93883306		31.000	31.000	0.000	0.000
	Housing - Infrastructure	Mona Sunhill	61/62	Long = 31° 6' 19.074", Lat = 29° 33' 24.275"	-29.5567431	31.10529833	61/62	32.500	25.000	29.700	18.000
	Housing - Infrastructure	Ntuzuma D Ph 2&3 (Stage 2)	43/44	Long = 30° 55' 33.418", Lat = 29° 44' 5.242"	-29.7347894	30.92594944	43/44	32.000	27.000	22.500	0.000

	Housing - Infrastructure	Ntuzuma G Infill & G Triangle	42/55	Long = 30° 57' 8.154", Lat = 29° 43' 8.314"	-29.7189761	30.952265	42/55	2.000	2.000	1.000	1.000
	Housing - Infrastructure	Oakford Pr.	59	Long = 30° 59' 51.609", Lat = 29° 36' 19.132"	-29.6053144	30.99766917	59	52.000	52.000	0.000	0.000
	Housing - Infrastructure	Redcliffe	59/60	Long =31° 1' 6.981" E , Lat = 29° 37' 49.628" S	-29.6304522	31.01860583	59/60	0.000	0.000	2.000	10.000
	Housing - Infrastructure	Roseneath Gardens	99	30° 1' 49.0296'' S 29° 36' 12.7764'' E	-30.1935725	30.744355			0.000	10.400	1.100
	Housing - Infrastructure	Tshelimnyama Ph 4	15	30°47'44.154"E 29°50'5.47"S	-29.834853	30.795598		15.000	15.000	25.000	54.000
	Housing - Infrastructure	Umbhayi	61	Long = 31° 5' 19.687", Lat = 29° 34' 25.920"	-29.5738667	31.08880194	61	12.000	12.000	20.000	30.000
	Housing - Infrastructure	Umlazi B10	79/77/81/82 /84	29° 56' 52.50'' S 30° 52' 59.63'' E	-29.9508661	30.89319139		10.000	10.000	4.000	0.000
	Housing - Infrastructure	Umlazi Infill - BX4	88	29° 57' 33.3576'' S 30° 54' 21.1284'' E	-29.9643317	30.90457139			4.700	0.000	0.000
	Housing - Infrastructure	Umlazi Infill - g20	56	29° 57' 6.33'' S 30° 52' 33.77'' E	-29.671	30.9532		0.000	18.600	0.000	0.000
	Housing - Infrastructure	Umlazi Infill - CX1	81	29° 57' 7.8732'' S 30° 54' 10.7964'' E	-29.9479272	30.90138528		8.500	0.000	8.500	6.500
	Housing - Infrastructure	Umlazi Infill - EX1	80	29° 56' 37.1368'' S 30° 54' 51.2868'' E	-29.952665	30.90348278		13.000	0.000	13.000	15.000

	Housing - Infrastructure	Umlazi Infill - FX3	79	29° 56' 35.7648'' S 30° 53' 57.6344'' E	-29.9509672	30.89271333		4.000	4.000	10.600	0.000
	Housing - Infrastructure	Umlazi Infill - KX1	77	29° 57' 55.9944'' S 30° 51' 4.7880'' E	-29.9613497	30.84813361		9.000	0.000	5.000	11.000
	Housing - Infrastructure	Umlazi Infill - M8,9,10	83	29° 58' 5.4516'' S 30° 52' 17.1336'' E	-29.9746139	30.87100472		1.000	9.000	0.000	0.000
	Housing - Infrastructure	Umlazi Infill - P8	87	29° 58' 7.5000'' S 30° 53' 3.6348'' E	-29.9733422	30.89002611		2.150	0.000	4.150	0.000
	Housing - Infrastructure	Umlazi Infill - PMH	85	29° 58' 7.5000'' S 30° 53' 3.6348'' E	-29.9754839	30.88078278		7.000	0.000	7.950	7.450
	Housing - Infrastructure	Umlazi Infill (GX5)	79	29° 56' 45.6828'' S 30° 52' 53.3028'' E	-29.9451583	30.87941722		0.000	10.600	0.000	0.000
	Housing - Infrastructure	Zamani 2B	91	Long = 30° 38' 23.657", Lat = 29° 49' 22.548"	-29.82293	30.63990472		25.000	25.000	22.000	0.000
	Housing - Infrastructure	Umlazi Infill Part 2 Phase 1 Unit H (HX14)	77	29° 56' 56.3748'' S30° 52' 11.9676'' E	-29.9831558	30.89468639		4.700	0.000	6.600	4.750
	Housing - Infrastructure	Umlazi Infill Part 2 Phase 1Unit Q(Q8-Q10)	81	29° 58' 46.4088'' S 30° 53' 34.6344'' E	-29.9831558	30.89468639		14.000	0.000	16.000	14.000
	Housing - Infrastructure	Umlazi Infill Part 5 Ph1 Unit (V8) / Umlazi Glebe	83	29° 58' 7.5000'' S 30° 53' 3.6348'' E	-29.9667939	30.9284225		0.000	0.000	14.200	9.000
	Housing - Infrastructure	Umlazi Infill - Part 4 - HX2	77	Long = 30° 52' 29.435", Lat = 29° 56' 59.102"	-29.9497506	30.87484306			14.400	0.000	0.000

	Housing - Infrastructure	Mini Town phase 2	80	30°37'50.153"E 29°47'52.645"S	-29.795179	30.63032		0.000	0.000	24.000	24.000
	Housing - Infrastructure	Amaoti Cuba Phase 2	53	Long = 30° 59' 47.514", Lat = 29° 40' 34.179"	-29.6761608	30.99653167	53	0.000	0.000	0.000	10.500
	Housing - Infrastructure	Ntuzuma G Infill & G Triangle - Contractor	42/55	Long = 30° 57' 8.154", Lat = 29° 43' 8.314"	-29.7189761	30.952265	42/55	0.000	0.000	0.000	8.800
	Housing - Infrastructure	Burlington Greenfields - Extension Ph2	84	30°53'32.063"E 29°53'35.359"S	-29.893155	30.89224		0.000	0.000	12.000	20.000
	Housing - Infrastructure	Etafuleni 1da	53/56/59	Long = 30° 57' 21.701", Lat = 29° 40' 16.197"	-29.6711658	30.95602806	53/56/59	0.000	0.000	0.000	24.000
	Housing - Infrastructure	Cornubia North	58/102	29° 40' 38.078" S,31° 4' 55.996" E							
	Housing - Infrastructure	Umlazi V5 / 6 / 7	76/80	29° 57' 14.747" S ,30° 55' 41.127" E							
	Housing - Infrastructure	Umlazi S1,2 (Emhlabeni)	88	29° 57' 54.763" S, 30° 54' 50.974" E							
	Housing - Infrastructure	S3 (Zakheleni)	88	29° 51' 1.498" S, 30° 55' 1.253" E							
	Housing - Interim Services	Early childhood development centres in Informal settlements							2.000	3.000	4.000
	Housing - Interim Services	Amawoti-Moscow	53/59	Long = 30° 59' 46.014", Lat = 29° 40' 4.567"	-29.6679353	30.996115	53/59	10.700	10.700	0.000	0.000

	Housing - Interim Services	Umlazi AX1	88	Long = 30° 54' 48.256", Lat = 29° 57' 36.401"	-29.9584447	30.91257111		0.100	0.100	0.000	0.000
	Housing - Interim Services	Umlazi AX1	88	Long = 30° 54' 48.256", Lat = 29° 57' 36.401"	-29.9584447	30.91257111		1.200	1.200	0.000	0.000
	Housing - Interim Services	Umlazi EX7 (Ethopia)	80	Long = 30° 55' 20.135", Lat = 29° 56' 47.175"	-29.9464375	30.92225972		3.900	3.900	0.000	0.000
	Housing - Interim Services	Umlazi ZX16 (Phalamende)	85	Long = 30° 53' 4.137", Lat = 29° 59' 51.766"	-29.9977128	30.8844825		1.800	1.800	0.000	0.000
	Housing - Interim Services	Panekeni	4	Long = 30° 40' 28.005", Lat = 29° 41' 56.886"	-29.699135	30.67444583		8.200	8.200	0.000	0.000
	Housing - Interim Services	Wathanga	7	Long = 30° 40' 51.246", Lat = 29° 50' 24.246"	-30.6809017	30.68090167		3.800	3.800	0.000	0.000
	Housing - Interim Services	Dark City	9	Long = 30° 53' 8.953", Lat = 29° 44' 3.984"	-29.73444	30.88582028		6.000	6.000	0.000	0.000
	Housing - Interim Services	Cliffdale School Station	103	Long = 30° 41' 5.000", Lat = 29° 47' 12.688"	-29.7868578	30.68472222		3.200	3.200	0.000	0.000
	Housing - Interim Services	Lungelani	58	Long = 31° 7' 28.318", Lat = 29° 38' 16.337"	-29.6378714	31.12453278	58	2.600	2.600	0.000	0.000
	Housing - Interim Services	Ivy Close	59/60	Long = 31° 0' 58.590", Lat = 29° 38' 43.479"	-29.6454108	31.016275	59/60	1.700	1.700	0.000	0.000
	Housing - Interim Services	Jan Roz	62	Long = 31° 8' 37.471", Lat = 29° 32' 45.457"	-29.5459603	31.14374194	62	2.600	2.600	0.000	0.000
	Housing - Interim Services	Umlazi EX9/ E16 (Thandanani)	80	Long = 30° 55' 26.450", Lat = 29° 56' 36.723"	-29.9435342	30.92401389		1.600	1.600	0.000	0.000

	Housing - Interim Services	Umlazi EX14 (Jabulani)	81	Long = 30° 54' 34.416", Lat = 29° 57' 9.348"	-29.9525967	30.90956		2.000	2.000	0.000	0.000
	Housing - Interim Services	Umlazi J 17+D189	77	Long =30° 51' 37.791", Lat = 29° 56' 24.029"	-29.9400081	30.8604975		0.800	0.800	0.000	0.000
	Housing - Interim Services	Umlazi MX3	83	Long = 30° 52' 36.380", Lat = 29° 58' 31.767"	-29.9754908	30.87677222		1.000	1.000	0.000	0.000
	Housing - Interim Services	Umlazi N 6	85	Long = 30° 52' 40.362", Lat = 29° 58' 4.318" S	-29.9678661	30.87787833		0.300	0.300	0.000	0.000
	Housing - Interim Services	Umlazi E5 (Ekuthuleni)	80	Long = 30° 55' 2.504", Lat = 29° 57' 0.108"	-29.95003	30.91736222		1.000	1.000	0.000	0.000
	Housing - Interim Services	Umlazi EX4 (Thokoza)	80	Long = 30° 55' 9.912", Lat = 29° 56' 51.745"	-29.9477069	30.91942		1.000	1.000	0.000	0.000
	Housing - Interim Services	KwaMageza	9	Long = 30° 53' 8.953", Lat = 29° 44' 3.984"	-29.73444	30.88582028		0.300	0.300	0.000	0.000
	Housing - Interim Services	Ndliyomlilo	61	Long = 31° 5' 38.525",Lat = -29° 33' 19.094"	-29.5553039	31.09403472	61	3.400	3.400	0.000	0.000
	Housing - Interim Services	Parkington	34	Long = 31° 0' 38.611", Lat = -29° 46' 59.635"	-29.7832319	31.01072528	34	3.300	3.300	0.000	0.000
	Housing - Interim Services	Redcliffe 1 (Hilltop & KwaShabalala)	60	Long = 31° 1' 55.232" , Lat = -29° 37' 28.746"	-29.6246517	31.03200889	60	3.800	3.800	0.000	0.000
	Housing - Interim Services	V5	74/76	Long = 30° 55' 41.127" , Lat = -29° 57' 14.747"	-29.9540964	30.92809083		2.500	2.500	0.000	0.000
	Housing - Interim Services	AAX4-Power Station	84	Long = 30° 51' 48.925" , Lat = -29° 58' 28.147"	-29.9744853	30.86359028		3.200	3.200	0.000	0.000

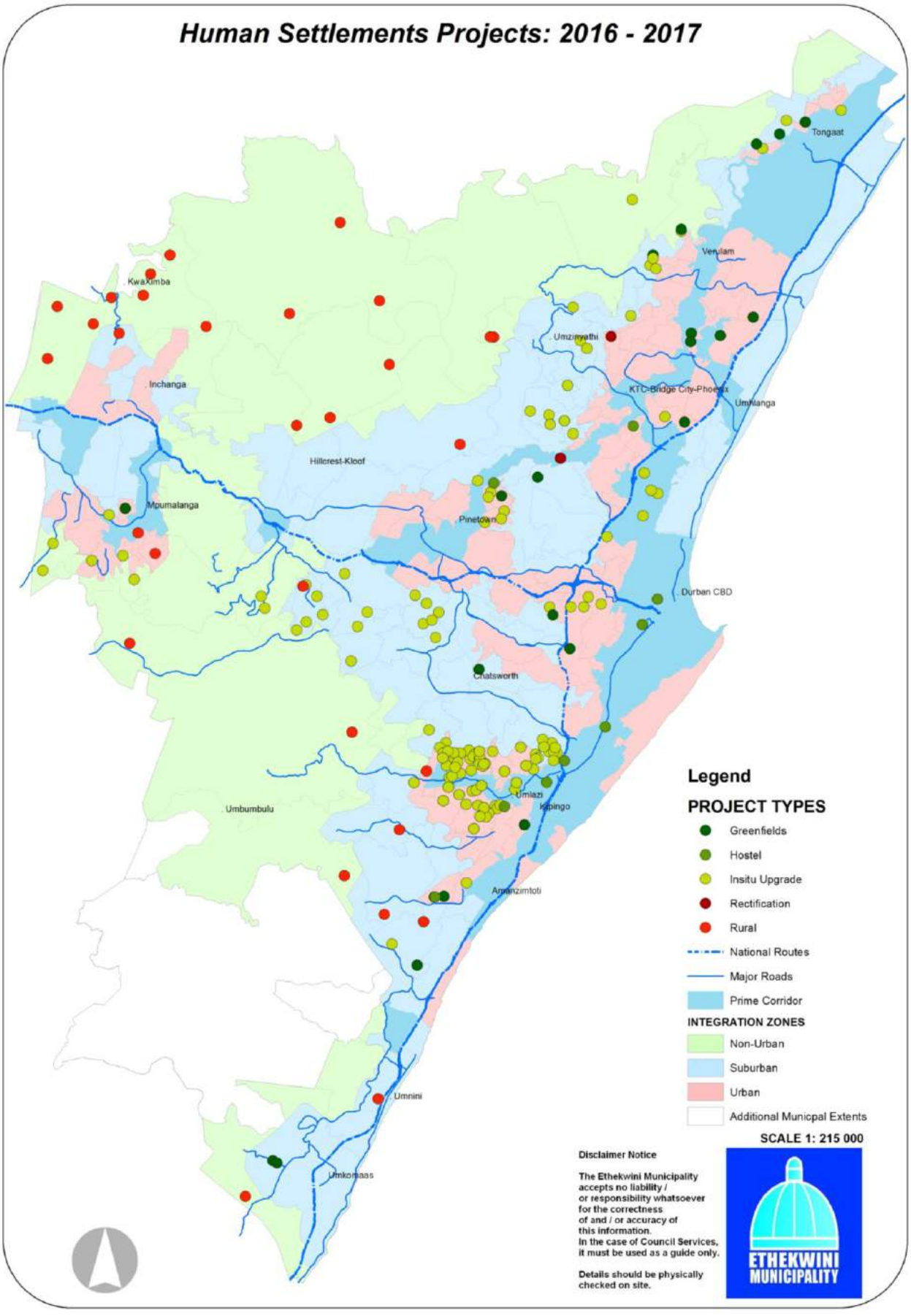
	Housing - Interim Services	V9/V6	74/76	Long = 30° 56' 4.533" , Lat = -29° 57' 11.489"	-29.9531914	30.9345925		6.800	6.800	0.000	0.000
	Housing - Interim Services	Unit R North (Sub 5)	13	Long = 30° 53' 26.702" E, Lat = -29° 46' 6.759" S	-29.7685442	30.89075056		0.200	0.200	0.000	0.000
	Housing - Interim Services	Protea	8	Long = 30° 45' 21.823",Lat = -29° 45' 8.369"	-29.7523247	30.75606194		2.300	2.300	0.000	0.000
	Housing - Interim Services	Luthuli Area	7	Long = 30° 39' 45.509" E , Lat = -29° 50' 22.181" S	-29.8394947	30.66264139		1.300	1.300	0.000	0.000
	Housing - Interim Services	Amawoti-Nigeria	59	Long = 30° 59' 57.180",Lat = -29° 40' 21.231"	-29.6725642	30.99921667	59	0.700	0.700	0.000	0.000
	Housing - Interim Services	Amawoti-Lybia - Palastine	53/59	Long = 30° 59' 25.628",Lat = -29° 40' 17.075"	-29.6714097	30.99045222	53	0.400	0.400	0.000	0.000
	Housing - Interim Services	KwaMashimane Valley View	59	Long = 31° 0' 18.064" , Lat = -29° 38' 40.228"	-29.8756189	30.93418444	59	0.100	0.100	0.000	0.000
	Housing - Interim Services	Redcliffe Cross Road	60	Long = 31° 1' 25.269" , Lat = -29° 37' 40.802"	-29.6280006	31.02368583	60	0.200	0.200	0.000	0.000
	Housing - Interim Services	Redcliffe Oakford Rd	60	Long = 31° 0' 43.934", Lat = -29° 37' 48.790"	-29.6302194	31.01220389	60	0.100	0.100	0.000	0.000
	Housing - Interim Services	Ntuzuma E1	43/44	Long = 30° 56' 12.114",Lat = -29° 43' 22.808"	-29.7230022	30.93669833	43/44	0.100	0.100	0.000	0.000
	Housing - Interim Services	Ntuzuma E8	43/44	Long = 30° 55' 17.327" , Lat = -29° 43' 30.832"	-29.7252311	30.92147972	43/44	0.100	0.100	0.000	0.000
	Housing - Interim Services	Ntuzuma E1	43/44	Long = 30° 56' 12.114" , Lat = -29° 43' 22.808"	-29.7230022	30.93669833	43/44	0.100	0.100	0.000	0.000

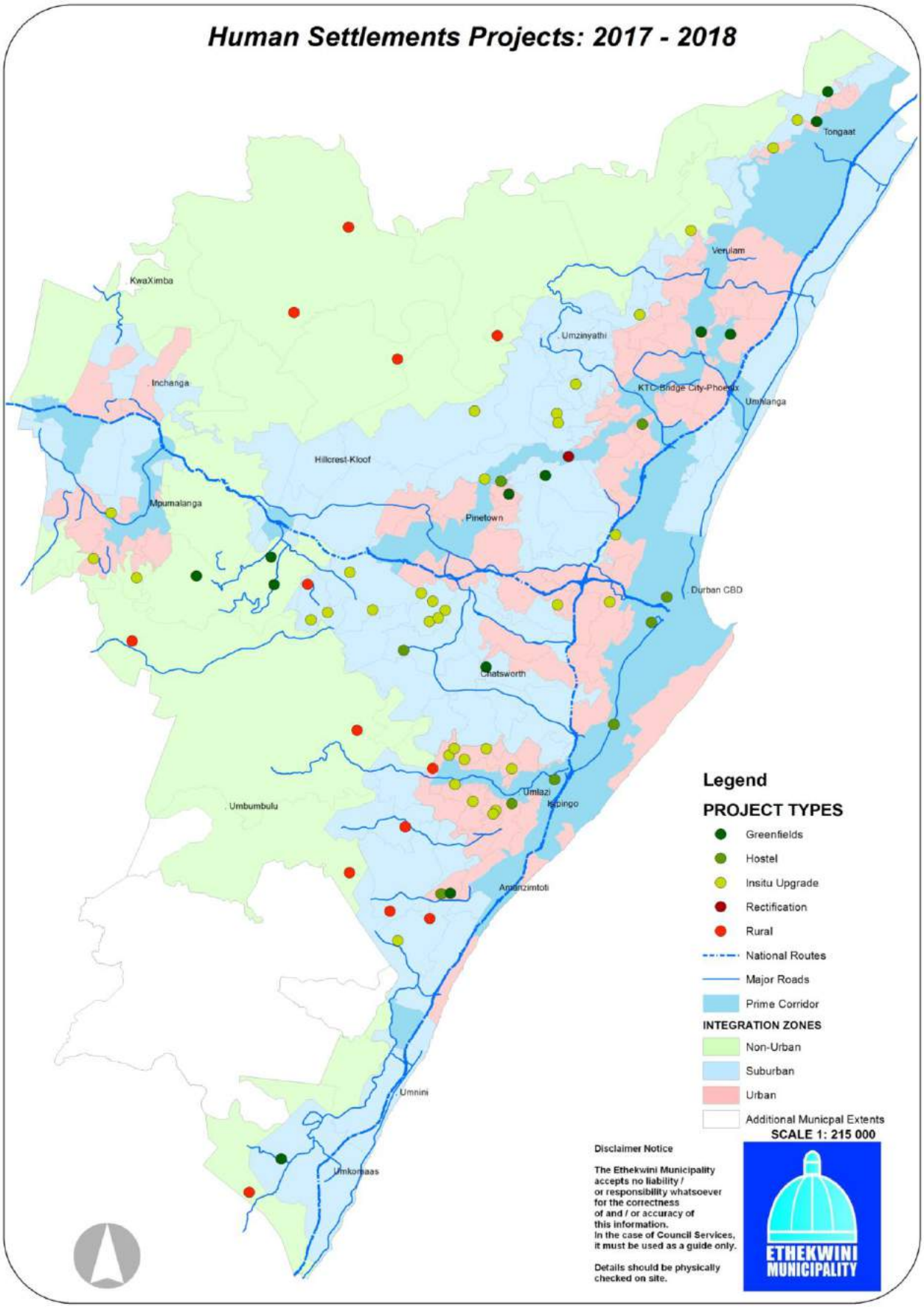
	Housing - Interim Services	Ntuzuma E8	43/44	Long = 30° 55' 17.327" , Lat = -29° 43' 30.832"	-29.7252311	30.92147972	43/44	0.100	0.100	0.000	0.000
	Housing - Interim Services	Amatikwe	3	Long = 30° 56' 15.329" , Lat = -29° 40' 41.950"	-29.6783194	30.93759139	3	0.600	0.600	0.000	0.000
	Housing - Interim Services	Simunye Triangle (Newtown B)	55	Long = 30° 57' 19.988" ,Lat = -29° 42' 57.397"	-29.7159436	30.95555222	55	0.200	0.200	0.000	0.000
	Housing - Interim Services	Langalibalele (1)	55/56/57	Long = 30° 57' 37.425" E , Lat = -29° 41' 33.230" S	-29.6925639	30.96039583	55/56/57	0.200	0.200	0.000	0.000
	Housing - Interim Services	Langalibalele (1)	55/56/57	Long = 30° 57' 37.425" E ,Lat = -29° 41' 33.230" S	-29.6925639	30.96039583	55/56/57	0.400	0.400	0.000	0.000
	Housing - Interim Services	AA-Chicago	83/84	Long = 30° 51' 30.593" ,Lat = -29° 58' 22.725"	-29.9729792	30.85849806		0.500	0.500	0.000	0.000
	Housing - Interim Services	NX6 (Enkanini)	85	Long = 30° 52' 40.362" ,Lat = -29° 58' 4.318"	-29.9678661	30.87787833		0.300	0.300	0.000	0.000
	Housing - Interim Services	U 8 (Ematayiteleni)	86	Long = 30° 53' 58.922" E ,Lat = -29° 59' 22.796" S	-29.9896656	30.89970056		0.100	0.100	0.000	0.000
	Housing - Interim Services	U9 (Zamani)	89	29° 59' 29.9796'' S 30° 54' 1.4684'' E	-29.8294197	30.63564528		0.100	0.100	0.000	0.000
	Housing - Interim Services	Z 8	86	29° 59' 27.2316'' S 30° 52' 50.6352'' E	-29.9932167	30.87696583		0.100	0.100	0.000	0.000
	Housing - Interim Services	J X 6	77	Long = 30° 51' 37.655" , Lat = -29° 56' 52.716"	-29.9479767	30.86045972		0.100	0.100	0.000	0.000

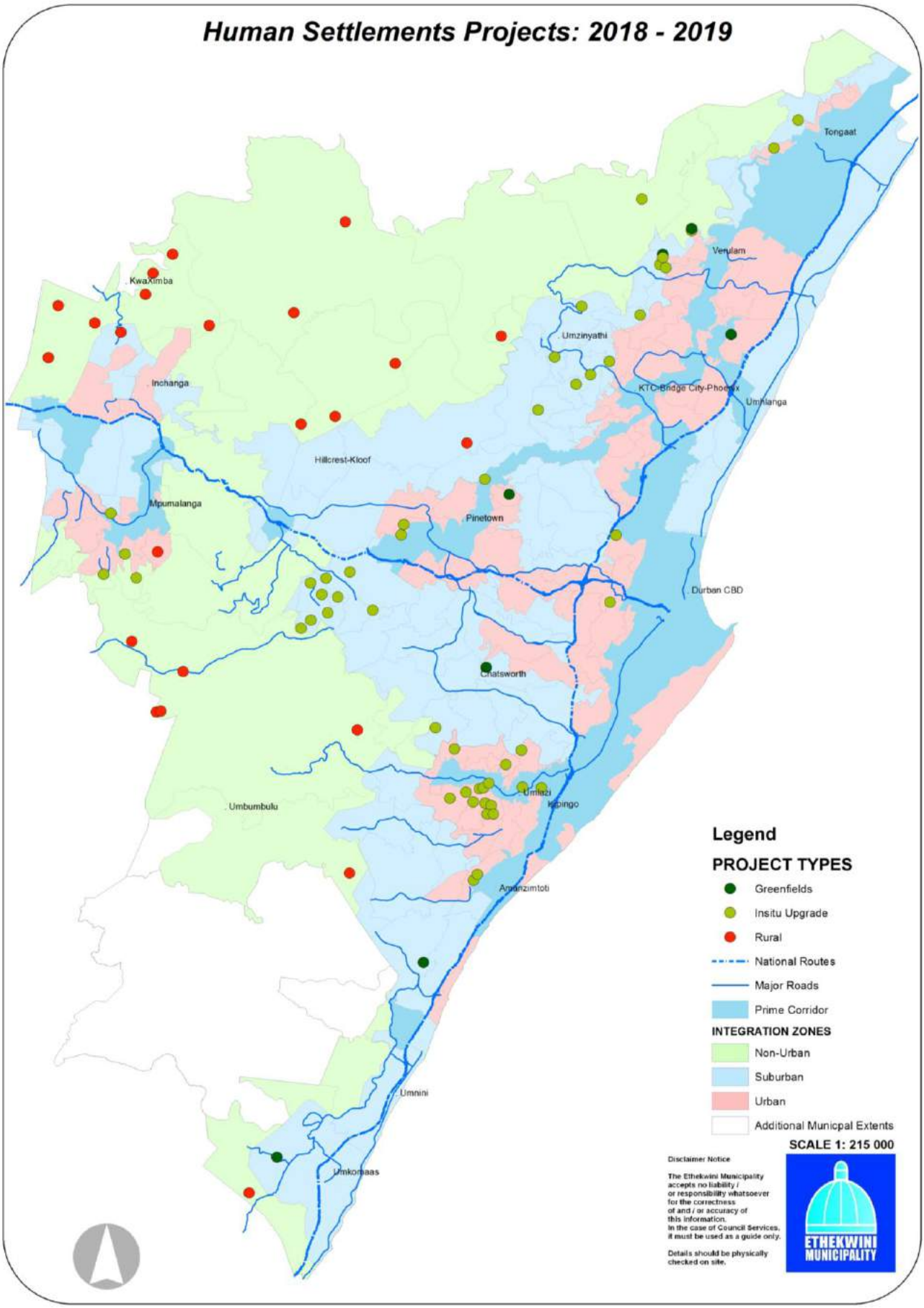
	Housing - Interim Services	J X 3/ J X 7	77	Long = 30° 51' 42.622" ,Lat = -29° 57' 5.469"	-29.9515192	30.86183944		0.400	0.400	0.000	0.000
	Housing - Interim Services	H X 6 A & B	77	Long = 30° 51' 59.203" ,Lat = -29° 56' 15.880"	-29.9377444	30.86644528		1.000	1.000	0.000	0.000
	Housing - Interim Services	K2	78	Long = 30° 51' 3.913" ,Lat = -29° 57' 41.759"	-29.9615997	30.85108694		0.400	0.400	0.000	0.000
	Housing - Interim Services	K7\AA Lusaka	78	Long = 30° 50' 38.946" , Lat = -29° 57' 43.403"	-29.9620564	30.84415167		0.300	0.300	0.000	0.000
	Housing - Interim Services	Rietvallei	4	Long = 30° 38' 46.719" ,Lat = -29° 42' 40.109"	-29.7111414	30.64631083		0.300	0.300	0.000	0.000
	Housing - Interim Services	Harare 1	4	Long = 30° 40' 8.208" E , Lat = -29° 42' 26.277" S	-29.7072992	30.66894667		0.200	0.200	0.000	0.000
	Housing - Interim Services	Madwaleni	4	Long = 30° 39' 57.032" , Lat = -29° 42' 6.845"	-29.7019014	30.66584222		0.300	0.300	0.000	0.000
	Housing - Interim Services	Sagu (Sandton Phase 3)	12	Long = 30° 46' 34.269" , Lat = -29° 50' 52.775"	-29.8479931	30.77618583		0.700	0.700	0.000	0.000
	Housing - Interim Services	Mophela	5	Long = 30° 35' 14.468" , Lat = -29° 49' 17.239"	-29.8511775	30.80901889		0.400	0.400	0.000	0.000
	Housing - Interim Services	A1 Mpumalanga	6	Long =30° 36' 2.427" , Lat = -29° 48' 34.396"	-29.8095544	30.60067417		0.200	0.200	0.000	0.000

	Housing - Interim Services	Progress Place	72	Long = 30° 50' 11.723" , Lat = -29° 54' 5.825"	-29.9016181	30.83658972		0.700	0.700	0.000	0.000

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Human Settlements Projects: 2016 - 2017
Tongaat
Verulam
KwaXimba
Umzinyathi
Inchanga
KTC-Bridge City-Phoenix
Umhlanga
Hillcrest-Kloof
Mpumalanga
Pinetown
Durban CBD
Chatsworth
Umlazi
Kwangingo
Umbumbulu
Amanzimtoti
Umnini
Umkomaas
Legend
PROJECT TYPES
Greenfields
Hostel
Insitu Upgrade
Rectification
Rural
National Routes
Major Roads
Prime Corridor
INTEGRATION ZONES
Non-Urban
Suburban
Urban
Additional Municpal Extents
SCALE 1: 215 000
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ETHEKWINI MUNICIPALITY


Human Settlements Projects: 2017 - 2018
Tongaat
Verulam
KwaXimba
Umzinyathi
Inchanga
KTC-Bridge City-Phoenix
uMhlanga
Hillcrest-Kloof
Mpumalanga
Pinetown
Durban CBD
Chatsworth
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KwaXimba
Umzinyathi
Inchanga
KTC-Bridge City-Phoenix
Umhlanga
Hillcrest-Kloof
Mpumalanga
Pinetown
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LIST OF INFORMAL SETTLEMENTS - NOVEMBER 2015								
No.	**NAME OF SETTLEMENT**	**STREET NAME**	**PLANNING UNITS**	**ESTIMATED HOUSEHOLDS**	**WARDS**	**REGION**	**PROPOSED INTERVENTION**	**KZNDHSSTAT**
1	R.K Khan	101 R K Khan	Croftdene	10	70	Southern	Relocation	
2	Ensimbini 2	Putney PL / Nubian Ave	Wiggins - Dunbar	130	29	Southern	Relocation	
3	Etafuleni	MR93 North	Etafuleni	952	56/53	Northern	Insitu Upgrade	Approved
4	Amatikwe	MR93 North	Amatikwe	5645	56/3	Northern	Insitu Upgrade	
5	Langalibalele (1)	Nombonjane Mtshali / Dr Langalibalele Drive	Amatikwe / Amaoti / Langalibalele	629	57/ 56	Northern	Insitu Upgrade	
6	Congo Phase 2	MR93 /MR93 North	Inanda Congo	1010	56/55/57	Northern	Insitu Upgrade	
7	Stop 8 (Namibia)	Curnick Ndlovu Highway	Stop 8	2076	44/55/56	Northern	Insitu Upgrade	
8	Africa	Curnick Ndlovu Highway	Ohlange-Africa / Stop 8	767	55	Northern	Insitu Upgrade	
9	Namibia	Curnick Ndlovu Highway / Matshana Road	Inanda Namibia	1915	44/56	Northern	Insitu Upgrade	
10	Mshayazafe	Sidudla Road	Mshayazafe / Ohlange - Africa	317	55	Northern	Insitu Upgrade	Approved
11	Bhambayi	Curnick Ndlovu Highway	Bhambayi / Newtown C	3114	57	Northern	Insitu Upgrade	Approved
12	Shembe / Ekuphakameni	Curnick Ndlovu Highway / Shukuma Close	Ezimangweni / Ohlange-Mafukuzela / Newtown B Ext.	1104	55	Northern	Insitu Upgrade	
13	Ntuzuma E1	Ithendele Drive	Emachobeni / Ntuzuma E / Inanda Glebe	194	44/43	Northern	Insitu Upgrade	
14	Ntuzuma E8	121829 Street	Emachobeni / Ntuzuma E	184	44/43	Northern	Insitu Upgrade	
15	Ntuzuma C	Ntuzuma Main Road / Ibhucu Drive / Uxamu Drive / Ingcebo Dr	Ntuzuma C	2764	38/45	Northern	Insitu Upgrade	
16	Matamfana	Ngcebo Drive / Ibhucu Drive	KwaMashu N	307	45	Northern	Insitu Upgrade	Approved
17	Smithfield	Smithfield Road	Sea Cow Lake	191	34	Northern	Insitu Upgrade	

18	Johanna Road	Johanna Road / Boxwood Place	Sea Cow Lake	336	34	Northern	Relocation	Approved
19	Triumph/ Myhill Roads (Jamaica)	Triumph Road / Myhill Road / Maynard Road	Sea Cow Lake	600	34	Northern	Insitu Upgrade	
20	Gumtree Road (Kenville)	Gumtree Road	Sea Cow Lake	490	34	Northern	Insitu Upgrade	
21	Mysore Road (Temple)	Mysore Road (Temple)	Sea Cow Lake	247	34	Northern	Insitu Upgrade	
22	Jadhu Place	Jadhu Place	Springfield	1200	25	Northern	Insitu Upgrade	Approved
23	Foreman Road	Foreman Road	Clare Hills	1550	25	Northern	Relocation	Approved
24	Kennedy Road	Kennedy Road	Clare Hills	2147	25	Northern	Relocation (investigated for partly insitu)	Approved
25	Palmiet / Zone 2	Palmiet Road	Palmiet	20	23	Northern	Relocation	
26	Zone 1 Palmiet	Palmiet Road	Palmiet	585	23	Northern	Relocation	
27	L Section Palmiet	Palmiet Road	Palmiet / Sherwood	300	23	Northern	Relocation	Approved
28	Lacey Road	Lacey Road / Randles Road	Sydenham	181	31	Northern	Insitu Upgrade	Approved
29	Goqokazi	MR93 North	Goqokazi	890	56	Northern	Insitu Upgrade	Approved
30	White City	Daniel Msimango Road	Langalibalele	48	57	Northern	Insitu Upgrade	Approved
31	North Coast Road	Old North Coast Road	Avoca	162	34	Northern	Relocation	
32	Havelock Road	Sanderson Place	Greenwood Park	227	34	Northern	Insitu Upgrade	Approved
33	Ringside Road	Ringside Place / 122604 Road	Hippo Road	17	34	Northern	Insitu Upgrade	
34	Qhakaza 1, 2 & Sokwalisa (Duffs Road)	Ntokozo Road / Dumisani Makhaye Drive / Zamani Place	KwaMashu A	1606	39/102	Northern	Insitu Upgrade	Approved
35	Malacca Road	Malacca Road	Red Hill	31	35	Northern	Insitu Upgrade	
36	Silverwillow (Puntans Hill)	Ramnaidoo Road / Quarry Road	Springfield / Morningside	415	25	Northern	Insitu Upgrade	Approved
37	Hoffman Place	Hoffman Place	Springfield	70	25	Northern	Relocation	Approved
38	Richmond Farm A	Dukuza Road / Ingcebo Drive	Ntuzuma A / Ntuzuma C	200	38	Northern	Insitu Upgrade	
39	Siyasokola	Sea Cow Lake Road	Sea Cow Lake	304	34	Northern	Relocation	Approved
40	Ntuzuma G	Umbeza Way / Mbuso Road	Ntuzuma G / Soweto	213	42/43	Northern	Insitu Upgrade	Approved
41	Rainbow Ridge	Chiltern Drive / Palmiet Street	Palmiet	200	23	Northern	Insitu Upgrade	Approved

42	Amaotana	Street No. 20354	Amawoti / Amawotana	1300	59/56	Northern	Insitu Upgrade	
43	Parkington	Parkington Grove / Park Station Road	Kenville	329	34	Northern	Insitu Upgrade	Approved
44	NPA(Zamani)	Provincial Road / Gopalall Hurbans Road	Ottawa South	54	102	Northern	Relocation	
45	Stonebridge	Stonebridge Drive	Southgate-Centenary / Piesangrivier Open Space	37	48	Northern	Relocation	
46	Ajmery	Mkabayi Close	Umlazi AA	20	84	Southern	Insitu Upgrade	
47	Ntwasa / Mpanza Roads	Mhlongo Road / Mpanza Road	Lamontville	35	74	Southern	Relocation	
48	Mhlongo / Gambushe Roads	Magalela Place	Lamontville	8	74	Southern	Relocation	
49	Canelands / St Peter	Ramnath Road	Canelands	27	61	Northern	Relocation	
50	Umbhayi	Saxon Avenue / Edmundbury Street	Buffels Kloof	617	61	Northern	Insitu Upgrade	Approved
51	Dunpals	Off Saxon Avenue	Buffels Kloof	20	61	Northern	Insitu Upgrade	
52	Jan Roz	Jan Roz Crescent	Greylands	292	62	Northern	Insitu Upgrade	
53	Zwelisha	Bonga Mambumba Road	Trenance Park	1914	59	Northern	Insitu Upgrade	Approved
54	Gwala's	Douglas Place / Saunders` Circle	Tongaat South	360	61	Northern	Insitu Upgrade	
55	Zwelitsha	Off Douglas Circle / 80002 Street	Tongaat South	196	61	Northern	Insitu Upgrade	Approved
56	Kwasumubi / eMahlabathini	Vincent Dickinson Road	Hazelmere	2500	60	Northern	Insitu Upgrade	
57	Sitarami	82078 Street / 82076 Street	Buffels Kloof / Hambanathi Extension	423	61	Northern	Insitu Upgrade	
58	Zion	Shallcross Road	Shallcross	34	70/71	Western	Relocation	
59	Ekuthuleni (Shallcross)	Chiltern Road	Shallcross	103	63	Western	Relocation	
60	Ethembeni	Rameshvar Drive / Onyx Place	Shallcross	40	63	Western	Relocation	
61	Ratna/kwaBridge	Burlington Road	Burlington	131	65	Western	Relocation	
62	Dassenhoek - Block C	District Road	Dassenhoek	1448	14	Western	Insitu Upgrade	
63	Dassenhoek - Block F	Bhekisizwe Road	Dassenhoek	992	14	Western	Insitu Upgrade	

64	Dassenhoek - Block D	Milky Way	Thornwood / Tshelimnyama-Mpola / Dassenhoek	1882	14/15	Western	Insitu Upgrade	
65	Phase 5	Hansdettman Highway	AMT Industrial	125	63	Western	Relocation	
66	Motala heights 1	Ridge Road / Motala Street	Motala Heights	145	15	Western	Insitu Upgrade	
67	Emmaus	Emmaus Road	Westmead	300	15	Western	Insitu Upgrade	
68	Pemilton Avenue/ Ekuthuleni	Pemilton Avenue	Reservoir Hills	50	23	Western	Relocation	Approved
69	Shannon Drive/Emsahweni	Shannon Drive	Reservoir Hills	180	23	Western	Relocation	
70	Pridley Park / Croft	Croft Crescent	Reservoir Hills	33	23	Western	Relocation	Approved
71	Kies Avenue	Kies Avenue	Reservoir Hills	16	23	Western	Relocation	Approved
72	Umgudulu	Umgudulu Road / M19	University of Durban Westville	258	23	Western	Relocation	
73	Asinamali / Toni (St.Wendolins)	Wiltshire Road	AMT Industrial / Southmead	551	63/16	Western	Insitu Upgrade	Approved
74	Ekuthuleni (Naicker Road)	Track 38223 / Hans Dettman Highway	St Wendolins	30	17	Western	Relocation	
75	Cascades	Hans Dettman Highway	St Wendolins	20	17	Western	Relocation	
76	Dassenhoek - Block B (Mocambique)	MR559 Route	Dassenhoek	1660	14/15	Western	Insitu Upgrade	
77	Dassenhoek - Block A (Mansenseni)	MR559 Route	Dassenhoek	1593	14	Western	Insitu Upgrade	
78	KwaLinda	MR518	KwaNdengezi	706	12	Western	Rural	Approved
79	Sagu (Sandton phase 3)	MR 518 Route / Mpangele Drive	KwaNdengezi	718	12	Western	Insitu Upgrade	
80	KwaCutshwayo (Coffee-Farm phase 2)	MR518	KwaNdengezi	894	12/14	Western	Insitu Upgrade	Approved
81	KwaMajozi	Hansdettman Highway	St Wendolins	42	17	Western	Relocation	
82	New Germany Road	New Germany Road	Reservoir Hills	518	23	Western	Relocation	Approved
83	Soweto	Thirty Third Avenue / Clermont Road	Clermont Emngeni	464	92	Western	Insitu Upgrade	
84	Dukezwe	33rd Avenue	Clermont	153	92	Western	Insitu Upgrade	
85	Ezinyosini	Thirthy First Avenue	Clermont	401	92	Western	Insitu Upgrade	

86	Molokohla	Twenty First Avenue	Clermont	117	92	Western	Relocation	
87	Vezunyawo	Thirty Third Avenue / P Tshabalala Avenue	Clermont	114	92	Western	Insitu Upgrade	
88	Queensburgh / Huntley Road	Huntley Road	Malvern	19	63	Western	Relocation	
89	Umbilo River Valley	Scott's Place	Dawncliffe	7	18	Western	Relocation	
90	Chris Hani	Eighteenth Avenue	Clermont	204	22	Western	Insitu Upgrade	
91	Sandton phase 3 (KwaLinda)	Mpangele Drive	KwaNdengezi	241	12	Western	Insitu Upgrade	
92	Sandton phase 3 (Rockdale)	A Luthuli Crescent	KwaNdengezi	70	12	Western	Insitu Upgrade	
93	Klaarwater Camp	Wiltshire Road	AMT Industrial	159	63	Western	Relocation	
94	Marianridge Station	Old Richmond Road	Intake	100	17	Western	Relocation	
95	Samseni 1	Hillary Road / N2	Craigieburn	156	99	Southern	Relocation	
96	Kwa Ntobela	300066 Street	Clansthal	50	99	Southern	Relocation	
97	Stomote(Hull Valley)	300095 Street / M529	Clansthal	240	99	Southern	Relocation	
98	Hull Valley	M529	Clansthal	38	99	Southern	Relocation	
99	Samseni 2	N2	Craigieburn	100	99	Southern	Relocation	
100	London Farm	R78	Craigieburn	37	99	Southern	Relocation	
101	K7\AA Lusaka	Nyathi Road / Vela Avenue	Umlazi K	362	78/84	Southern	Insitu Upgrade	
102	J13	Esipokini Road / Pigogo Road / Zihlahla Road	Umlazi J	288	77	Southern	Insitu Upgrade	
103	K1	Griffiths Mxenge Highway / Josiah Dlamini Road / Phumula Rd	Umlazi K	327	78	Southern	Insitu Upgrade	
104	K2	Griffiths Mxenge Highway / Josiah Dlamini Road / Mabele Rd	Umlazi K	367	78	Southern	Insitu Upgrade	YR
105	K15	Griffiths Mxenge Highway	Umlazi K	161	78	Southern	Insitu Upgrade	
106	J17	Mbalane Road	Umlazi J	85	77	Southern	Insitu Upgrade	
107	J7	Bhasini Road	Umlazi J	138	77	Southern	Insitu Upgrade	
108	JX5	Zihlahla Road / Bhasini Road	Umlazi J	84	77	Southern	Insitu Upgrade	

109	HX8	Zihlahla Road / Nyamazane Street	Umlazi H / Umlazi J	520	77	Southern	Insitu Upgrade	Approved
110	J16	Bhasini Road / King Dingane Road	Umlazi J	403	77	Southern	Insitu Upgrade	
111	GX3	107810 Street / Bheki Mkhasibe Road	Umlazi G	300	79/77	Southern	Insitu Upgrade	Approved
112	J4	Isidingo Road / Bekezela Avenue / Isiding Road	Umlazi J	823	77	Southern	Insitu Upgrade	
113	JX4	Zihlahla Road	Umlazi J	169	77	Southern	Insitu Upgrade	
114	J2	King Dingane Road / Griffiths Mxenge Highway	Umlazi J	211	83	Southern	Insitu Upgrade	
115	JX1	Griffiths Mxenge Highway	Umlazi J	206	78	Southern	Insitu Upgrade	
116	KX10	Griffiths Mxenge Highway / Mayibuye Road	Umlazi K	227	78	Southern	Insitu Upgrade	
117	LX7	1130 Street / Griffiths Mxenge Highway	Umlazi L	218	83/78	Southern	Insitu Upgrade	
118	LX3 (Shayamoya)	Sithole Road / 1130 Street / Griffiths Mxenge Highway	Umlazi L / Umlazi M	101	83	Southern	Relocation	
119	HX2	Bheki Mkhasibe Road / Tsitsi Mashinini Road	Umlazi H / G	411	82/79	Southern	Insitu Upgrade	Approved
120	WX2 (White City)	Esduardo Mondlane Road / Blessing Mabaso Road	Umlazi H	943	82	Southern	Insitu Upgrade	
121	NX5	Nkosi Avenue / Hlongwa Crescent / Griffiths Mxenge	Umlazi N	385	82	Southern	Insitu Upgrade	
122	NX2	Mthembu Place	Umlazi N	66	82	Southern	Insitu Upgrade	
123	NX1 (Elahlamlenze)	Zamokuhle Street / Ngena Walk	Umlazi N	105	82	Southern	Insitu Upgrade	
124	N10 (Menzi)	1202 Street / Griffiths Mxenge	Umlazi N	117	82	Southern	Relocation	
125	M1	Emthethweni Road / Griffiths Mxenge Highway	Umlazi M	145	83	Southern	Insitu Upgrade	
126	M2	Njokweni Crescent / Ngwemabala Place	Umlazi M / Umlazi N	137	83	Southern	Relocation	
127	LX4 (Mshayazafe)	1103 Street	Umlazi L	37	83	Southern	Relocation	
128	L2 (Egcakini)	1115 Road / Ngangenkomeo Way	Umlazi L	300	83	Southern	Insitu Upgrade	
129	L2	1103 Street / Ngangenkomeo Way	Umlazi L	67	83	Southern	Insitu Upgrade	

130	L12 (Ekuthuleni)	1103 Street / Corner Kick Way / Ekuthuleni Close	Umlazi L	409	83	Southern	Insitu Upgrade	
131	K16/17	Mpevu Road / Umzimvubu Road	Umlazi K	104	78	Southern	Insitu Upgrade	
132	AA-Chicago	Chicago Road	Umlazi AA	1060	84	Southern	Insitu Upgrade	
133	L4 (A&B)	Phola Crescent / Sakhisizwe Place	Umlazi L	265	83	Southern	Insitu Upgrade	
134	AAX4-Power Station	Mugabe Road	Umlazi AA / Umlazi L	350	84	Southern	Insitu Upgrade	
135	AAX4-Extension	Mugabe Road	Umlazi AA	20	84	Southern	Relocation	
136	LX1 (Kwaphumephethe)	Mugabe Road	Umlazi L / Umlazi AA	47	83	Southern	Relocation	
137	M8/9/10	Sukuma Road / Monya Road / Nongqawuse Road	Umlazi M / Umlazi L	634	83	Southern	Insitu Upgrade	
138	MX7 (Zamokuhle)	Malasi Street / Zamokuhle Street / Emthethweni Road	Umlazi M	177	83	Southern	Insitu Upgrade	
139	M5	1103 Street / Nyambose Place	Umlazi M	158	83	Southern	Insitu Upgrade	
140	MX1	Nongqawuse Road	mlazi M / Umlazi AA	218	83	Southern	Insitu Upgrade	
141	MX3	Mqangala Road / Mkhovothi Road	Umlazi M	121	83	Southern	Insitu Upgrade	
142	MX6 (Ekuphileni)	Esiphethwini Road / Viviyo Road / Mphathi Avenue	Umlazi M	63	83/85	Southern	Insitu Upgrade	
143	MX4 (Ekuthuleni)	Emthethweni Road / Mkhovothi Road	Umlazi M	96	83	Southern	Relocation	
144	MX2	Maphitha Road	Umlazi M	150	83	Southern	Insitu Upgrade	
145	R5	Sikhonko Road / Mfelandawonye Road	Umlazi R	53	85	Southern	Insitu Upgrade	
146	NX6 (Enkanini)	Mabhnu Sabela Avenue / Mskhosi Street	Umlazi N	255	85	Southern	Insitu Upgrade	
147	F6 (Limpopo)	Dinuzulu Road / Cyril Zulu Grove	Umlazi F	1600	79	Southern	Insitu Upgrade	Approved
148	GX6	Malusi Road / Bhusmani Road	Umlazi G	97	79	Southern	Insitu Upgrade	Approved
149	C1	Mdakane Avenue / Madlebe Gumede Lane	Umlazi C	346	81	Southern	Insitu Upgrade	
150	C2 (Zimbabwe)	Rasta Hadebe Lane	Umlazi C	160	81	Southern	Insitu Upgrade	Approved
151	WX1 (CC Siyabusa)	Mafumbuka Avenue	Umlazi W	232	82	Southern	Insitu Upgrade	Approved
152	CX2 (Egqumeni)	Phumzile Circle	Umlazi C	246	81	Southern	Insitu Upgrade	Approved

153	CX7	Smith Manqele Avenue	Umlazi C	47	81	Southern	Insitu Upgrade	Approved
154	CX1 (New Village)	Babakhulu Avenue / Dlangisa Road	Umlazi C	400	81	Southern	Insitu Upgrade	Approved
155	EX15 (Buyani)	Sbusiso Mdakane Drive	Umlazi E	241	81	Southern	Insitu Upgrade	
156	EX11 (Ekuthembeni)	Maphikelela Road / Qabane Drive	Umlazi E	52	81	Southern	Insitu Upgrade	
157	E5 (Ekuthuleni)	Guerilla Road / Sbusiso Mdakane Drive	Umlazi E	106	80	Southern	Insitu Upgrade	
158	EX7 (Ethopia)	Linda Mnomiya Circle	Umlazi E	429	80	Southern	Insitu Upgrade	
159	EX9 / E16 (Thandanani)	Josia Mapholoba Road	Umlazi E	178	80	Southern	Insitu Upgrade	
160	A3	Lucky Lushaba Road	Umlazi A	163	80	Southern	Insitu Upgrade	
161	BX9 (Emndeni II)	Zimbali Road	Umlazi B	37	80	Southern	Insitu Upgrade	Approved
162	BX6 (Emndeni I)	Veni Yeni Road	Umlazi B	88	80	Southern	Insitu Upgrade	Approved
163	A1	Lucky Lushaba Road / Zimbali Road	Umlazi A	41	80	Southern	Insitu Upgrade	
164	AX1	Gybon Mpanza Drive / Veni Yeni Road	Umlazi A	143	88/80	Southern	Insitu Upgrade	
165	D1 (Ebuhleni)	Ntonto Zulu Drive	Umlazi D	65	88	Southern	Relocation	
166	AX2	Veni Yeni Road	Umlazi A	374	88	Southern	Insitu Upgrade	
167	S1/2 (Emhlabeni)	Griffiths Mxenge Highway	Umlazi S	1730	88	Southern	Insitu Upgrade	Approved
168	S3 (Zakheleni)	Mangosuthu Highway	Umlazi S	586	88	Southern	Insitu Upgrade	Approved
169	V5	Emakholweni Circle / Ndukenhle Circle / Madisa Circle	Umlazi V	1147	74/76/80	Southern	Insitu Upgrade	
170	V9/V6	Mshiyeni Road	Lamontville / Umlazi V	775	76/74	Southern	Insitu Upgrade	
171	V1	Veni Yeni Road / Mgobhozi Road	Umlazi V	175	88	Southern	Insitu Upgrade	
172	AX4 (Shayamoya) - Investigate with V1	Veni Yeni Road	Umlazi A	44	88	Southern	Insitu Upgrade	
173	Peace Valley (V7)	Prince Mcwayizeni Drive / Umthente Drive	Umlazi V	418	76	Southern	Insitu Upgrade	
174	Ezimeleni - Umlazi V8	Prince Mcwayizeni Drive	Umlazi V	1600	76	Southern	Insitu Upgrade	
175	Uganda	Inwabi Road	Umlazi T / Isipingo	481	89	Southern	Insitu Upgrade	Approved
176	DX1	Hambakahle Mkhonto Road	Umlazi W / Umlazi D	309	82/88	Southern	Insitu Upgrade	

			/ Umlazi B					
177	DX2 (Emseni)	Mnyandu Thokozani Road	Umlazi D	167	88	Southern	Insitu Upgrade	
178	DX18	Asijiki Road / Silwelinkululeko Rd	Umlazi D	108	87	Southern	Insitu Upgrade	
179	T1/2	1722 Road / 1726 Road	Umlazi T	280	89/87	Southern	Insitu Upgrade	
180	T5	1729 Road	Umlazi T	115	89	Southern	Insitu Upgrade	
181	T4	1729 Road	Umlazi T	140	89	Southern	Insitu Upgrade	
182	AA-Siyaphola	Simalane Drive	Umlazi AA	159	85	Southern	Insitu Upgrade	
183	P5/PX3	Mkhiwane Street / Phambili Road	Umlazi P / Umnlazi Q	262	85/87	Southern	Insitu Upgrade	
184	QX6	Mkhiwane Street	Umlazi Q / Umlazi Z	212	87/86	Southern	Insitu Upgrade	
185	UX2 (Tropica)	Maurice Gumede Drive / Isidingo Grove	Umlazi U	535	86	Southern	Insitu Upgrade	
186	Island (Z)	South Spinal Road	Umlazi Z / Umlazi U	81	86	Southern	Insitu Upgrade	
187	Z7	South Spinal Road / Malusi Cele Avenue / Inqawe Circle	Umlazi Z / Umlazi U	95	86	Southern	Insitu Upgrade	
188	ZX7	South Spinal Road / Mkhathali Drive	Umlazi Z	155	85	Southern	Relocation	
189	UX3 (Qhiph'Khowe)	Mkhathali Drive / Maurice Gumede Drive / Balungile Grove	Umlazi U	219	85	Southern	Insitu Upgrade	
190	ZX16 (Phalamende)	Sbu Magwanyane Drive / Mkhathali Drive	Umlazi U	195	85	Southern	Insitu Upgrade	
191	Walter Sisulu	Kaula Road	Lamontville	372	75/74	Southern	Insitu Upgrade	Approved
192	Barcelona 1	Mhlongo Road	Lamontville	256	74	Southern	Insitu Upgrade	Approved
193	Mfeka Place	Ntuli Street / Ntuli Walk / Ngidi Place	Lamontville	86	74	Southern	Insitu Upgrade	Approved
194	Ekuthuleni 1	Hall/ Kulu / Malinga Roads	Lamontville	235	75	Southern	Insitu Upgrade	Approved
195	Ekuthuleni 2 A (Lillian Ngoyi)	Simelane Place/ Sibiya Place / Makhathini Avenue	Lamontville	145	74	Southern	Insitu Upgrade	Approved
196	EX1 (Zilungiseni)	Sbusiso Mdakane Drive	Umlazi E	807	80/81	Southern	Insitu Upgrade	
197	EX2	Themba Thabethe Road	Umlazi E	819	80	Southern	Insitu Upgrade	
198	BX1 (Phola Place)	Imfongosi Drive / Zitinini Drive	Umlazi B	208	81/80	Southern	Insitu Upgrade	
199	C6 (Gugulethu)	Sibusiso Mdakane Drive	Umlazi E	209	81	Southern	Insitu Upgrade	

200	DX4	Siyaya Street and Griffiths Mxenge Highway	Umlazi R / Umlazi D / Umlazi W	116	88	Southern	Insitu Upgrade	
201	GX11 (Khayelihle)	Sbusiso Mdakane Drive / Nunu Shezi Drive	Umlazi G	903	79	Southern	Insitu Upgrade	Approved
202	K6	Josiah Dlamini Road / Ezimpukwini Avenue	Umlazi K	500	78	Southern	Insitu Upgrade	
203	KX11	Josiah Dlamini Road / Nyathi Road	Umlazi K	299	78	Southern	Insitu Upgrade	
204	KX12	Vela Avenue / 1041Street	Umlazi K	142	78	Southern	Insitu Upgrade	
205	JX6	Zihlahla Road	Umlazi J	142	77	Southern	Insitu Upgrade	
206	GX2 (Maputo)	Imvubu Street / Umonya Road	Umlazi G	125	79	Southern	Insitu Upgrade	
207	K11	Sigonyela Road / Sankotshe Ave	Umlazi K	314	78	Southern	Insitu Upgrade	
208	LX2	Ematsheni Place	Umlazi L	31	83	Southern	Insitu Upgrade	
209	LX6 E (Nyanda Park)	Bheka Road / Khalamazu Road	Umlazi L	27	83	Southern	Relocation	
210	Q1 / Q2 / Q3	Mango Close	Umlazi Q	1000	87	Southern	Insitu Upgrade	
211	Q4 / Q5	Ugagane Street / Banana Road /	Umlazi Q	1100	87	Southern	Insitu Upgrade	
212	P8	Isandlwana Hill / Bongi Avenue	Umlazi P	146	87	Southern	Insitu Upgrade	
213	QX4	Ngwenya Road / Phahla Street / Malizwenda Road	Umlazi Q	100	87	Southern	Insitu Upgrade	
214	PX7	Mabopha Avenue / Umdoni Street	Umlazi P	72	87/85	Southern	Insitu Upgrade	
215	PX1	Sikhonko Road / Emthethweni Road	Umlazi P	35	85	Southern	Insitu Upgrade	
216	N1	Mabhunu Sabela Avenue / Masakhane Road	Umlazi N	14	85	Southern	Relocation	
217	N4	Zamokuhle Street	Umlazi N	60	82	Southern	Insitu Upgrade	
218	N6	Vusi Mtshali Drive / Mambo Avenue	Umlazi M / Umlazi N	34	85	Southern	Insitu Upgrade	
219	R10 (Mapetla)	Ekuphileni Road / Vusi Mtshali Drive	Umlazi R	29	85	Southern	Relocation	
220	R6 (West)	Griffiths Mxenge Highway / Ndokwenhle Street	Umlazi R	101	82	Southern	Insitu Upgrade	
221	RX1	Madadeni Close / Njilo Crescent	Umlazi R	13	82	Southern	Relocation	

222	U8 (Ematayiteleni)	Ntando Avenue	Umlazi U	42	86	Southern	Insitu Upgrade	
223	U3	Principal Avenue / Mngana Walk	Umlazi U	122	86	Southern	Insitu Upgrade	
224	U M H (Lusaka)	South Spinal Road / Masihlangane Lane	Umlazi U	230	86	Southern	Insitu Upgrade	
225	Z8	Ingilosi Close	Umlazi Z	63	86	Southern	Insitu Upgrade	
226	Z9	Khonto Circle / Silwanendlala Grove	Umlazi Z	40	85	Southern	Insitu Upgrade	
227	Z1	Mkhonto Circle Smomondiya Grove / South Spinal Road	Umlazi Z	54	85	Southern	Insitu Upgrade	
228	U2 (Ezitimeleni)	Phutumani Avenue / Cwebile Place	Umlazi U	61	85	Southern	Insitu Upgrade	
229	U (Phola Park)	South Spinal Road	Umlazi U	45	86/85	Southern	Insitu Upgrade	
230	Z6	Inqawe Circle / Mamthombeni Close	Umlazi Z	106	86	Southern	Insitu Upgrade	
231	Z5	Malusi Cele Avenue / Iphupho Grove / Inqawe Circle	Umlazi Z	287	86	Southern	Insitu Upgrade	
232	F9	David Sponono Gasa Road / Sdumo Mathe Road	Umlazi F	16	79	Southern	Insitu Upgrade	
233	Ngcamu	Ngcamu Place	Lamontville	200	74	Southern	Insitu Upgrade	Approved
234	Msizi Dube	Magalela Place	Lamontville	69	69	Southern	Insitu Upgrade	Approved
235	V10 (Shayamoya)	Zinkawini Road / 122175 Street	Umlazi A / Umlazi V	108	80	Southern	Insitu Upgrade	
236	GX4	Ndlulamithi Crescent	Umlazi G	386	79	Southern	Insitu Upgrade	Approved
237	JX15	Mthombothi Avenue / Sinqawe Lane	Umlazi J	29	78	Southern	Relocation	
238	JX8	Sgqoko Road	Umlazi J / Umlazi M	70	83	Southern	Insitu Upgrade	
239	J12	Ngcongo Avenue	Umlazi J	48	78	Southern	Insitu Upgrade	
240	E2 (Egoli)	Guerilla Road / 107877 Street	Umlazi E	432	80	Southern	Insitu Upgrade	
241	DX13 (Mhlanga Forest)	Siyaya Street	Umlazi D	32	88	Southern	Insitu Upgrade	
242	LX2 (Phola Park)	Bhabha Road	Umlazi L	14	83	Southern	Relocation	
243	HX6 A & B	Isandlwana Street / Zihlahla Road	Umlazi H	1244	77	Southern	Insitu Upgrade	Approved
244	HX9	Zihlahla Road / 121896 Street	Umlazi H	54	77	Southern	Insitu Upgrade	Approved
245	H14	Alison Street / Isandlwana Street	Umlazi H	290	77	Southern	Insitu Upgrade	Approved

246	KX13	Josiah Dlamini Road / Mpevu Road	Umlazi K	267	78	Southern	Insitu Upgrade	
247	K7	Singqandu Road	Umlazi K	68	78	Southern	Insitu Upgrade	
248	Umlazi - Q15	Mayibuye Drive / Gum Tree Crescent	Umlazi Q	128	86	Southern	Insitu Upgrade	
249	Q8/9/10	Mayibuye Drive / Msilinga Street	Umlazi Q	292	87/86	Southern	Insitu Upgrade	Approved
250	K1-3D	Thendele Avenue / Phumula Road	Umlazi K	37	78	Southern	Insitu Upgrade	
251	K5	Mabele Road	Umlazi K	18	78	Southern	Insitu Upgrade	
252	JX3 / JX7	Dloko Road / Mbalane Road / Esipokini Road	Umlazi J	398	77	Southern	Insitu Upgrade	
253	PMH	Emthethweni Road / Zama Ngobo Avenue	Umlazi P / Umlazi M	231	85/83	Southern	Insitu Upgrade	
254	N11	Sosibo Place	Umlazi N	9	85	Southern	Relocation	
255	M 7/MX14 (Emhlabeni)	Mshengu place / Nhlakanipho Place / Ntombazi Street	Umlazi M	122	83/85	Southern	Insitu Upgrade	
256	M12	Emthethweni Road / Mabhuda Road	Umlazi M	332	83	Southern	Insitu Upgrade	
257	M14(Shisa-Bhe)	Vusi Mtshali Drive / Hosiyana Streey	Umlazi M	199	83	Southern	Insitu Upgrade	
258	D3 (Ekuthuleni)	Masakhane Street	Umlazi D	54	88	Southern	Insitu Upgrade	
259	Tioxide	510031 Street / Wand Cele Road	Ezimbokodweni	1048	93	Southern	Insitu Upgrade	Approved
260	New City	Phelakwakhe Circle	Ezimbokodweni / Emansomini	2082	93/94	Southern	Insitu Upgrade	Approved
261	Bhodini	Wanda Cele Road	Ezimbokodweni	415	93	Southern	Insitu Upgrade	Approved Refer to HP Ezimbokodweni
262	Eplangweni	Mfundi Mngadi Drive / Wanda Cele Road	Ezimbokodweni	825	93	Southern	Insitu Upgrade	Approved Refer to HP Ezimbokodweni
263	Msinsini	510031 Street	Ezimbokodweni	842	93	Southern	Insitu Upgrade	Approved Refer to HP

								Ezimbokodweni
264	Mancane	Wanda Cele	Ezimbokodweni	881	93	Southern	Insitu Upgrade	Approved Refer to HP Ezimbokodweni
265	Embandeni	50252 Street	Ezimbokodweni	470	93	Southern	Insitu Upgrade	Approved Refer to HP Ezimbokodweni
266	Qhiph'Khowe	Wanda Cele Road / 50252 Street	Ezimbokodweni / Umbongintwini	360	93	Southern	Insitu Upgrade	
267	Pilgrims x	Nogin Road / Orient Road	Isipingo	389	90	Southern	Insitu Upgrade	
268	Dakota Beach	Ernest Clockie Road	Isipingo Beach	587	90	Southern	Relocation	Approved
269	Stockville Settlement	Stockville Road / Lehri Road	Stockville	515	10	Western	Insitu Upgrade	
270	KwaDlwembe	Dlwembe Road	Ntshongweni	117	7	Western	Insitu Upgrade	
271	Ezibomvini	ZD615 Road	Mandlakazi / Ntshongweni	100	7	Western	Insitu Upgrade	
272	KwaMbiza	D997	Ntshongweni	469	7	Western	Insitu Upgrade	
273	Ekwandeni	Sibisi Road	Mandlakazi & Mpumalanga East	1500	7/91	Western	Insitu Upgrade	
274	Luthuli Area	ZD615 Road	Ntshongweni	214	7	Western	Insitu Upgrade	
275	Wathanga	D210 / ZD615 Road	Ntshongweni	802	7	Western	Insitu Upgrade	
276	Seventeen	ZD615 Road	Ntshongweni / Mandlakazi	295	7	Western	Insitu Upgrade	
277	Esikhelekehleni 1	D1004	Esikhelekehleni	1145	4	Western	Insitu Upgrade	
278	Sthumba	D1004	Sithumba	450	1/4	Western	Insitu Upgrade	Approved
279	Mvini	D1027 / D1004	Emvini / Bhobhonono	446	1	Western	Rural	Approved
280	Bhobhonono	District Road No.1002	Bhobhonono	428	1	Western	Rural	Approved
281	Nonoti	D1002	Nonoti	274	1	Western	Rural	Approved
282	Msunduzi	D1002 / MR566 / MR423	Msunduzi / Siweni	1138	1	Western	Rural	
283	Denge	Abattoir Street	Denge / Harrison /	310	1	Western	Rural	Approved

			Siweni					
284	Siweni	ZD644 Road	Siweni	325	1	Western	Rural	Approved
285	Ntukuso	D1021	Ntukuso / Siweni	481	1	Western	Rural	Approved
286	Nconcosi	Ntuli Road	Siweni	243	1	Western	Rural	
287	Uthwebu	D1022	Uthweba / Ntukuso / Siweni	962	1	Western	Rural	Approved
288	Mngcweni	Track 65311	Mngcweni / Harrison	182	4/1	Western	Insitu Upgrade	
289	Rietvallei	65001 Street / 65026 Street	Fredville / Harrison	313	4	Western	Insitu Upgrade	
290	Sankotshe	MR430 / Meyiwa Main Road	Sankotshe / Georgedale	1308	5	Western	Insitu Upgrade	
291	Georgedale	Mthoko Mkhize Road	Georgedale / Camperdown Rural	2944	5	Western	Insitu Upgrade	
292	Mophela	MR430	Mophela	912	5	Western	Insitu Upgrade	
293	Woodyglen	Saganga Highway	Mpumalanga-East	166	91	Western	Insitu Upgrade	Approved
294	Bucks Farm (Riverdale)	Cliffdale Road	Bux Farm	490	103	Western	Insitu Upgrade	
295	Cliffdale School Station	62025 Street	Cliffdale	450	103	Western	Insitu Upgrade	
296	Cliffdale Highway (Kwa Douglas)	Capital Hill Drive	Cliffdale	31	103	Western	Insitu Upgrade	
297	Lubex Road/Ezitendeni	Lubex Road	Mpumalanga East	318	6	Western	Insitu Upgrade	
298	Waterfal 1 (Nqethe)	Ngwele Road	Waterfal	47	9	Western	Relocation	
299	Congo	99551 Street	Upper Molweni	480	9	Western	Insitu Upgrade	
300	Dark City	Inanda Road	Upper Molweni	685	9	Western	Insitu Upgrade	
301	Lower Molweni	Inanda Road / Fannin Road	Lower Molweni / Upper Molweni	1139	9/19	Western	Rural	Approved
302	KwaMageza	Inanda Road	Upper Molweni	282	9	Western	Insitu Upgrade	
303	Molweni (Romani 1)	Ikhwezi Road / Bhalito Road	Upper Molweni / Lower Molweni	973	9	Western	Insitu Upgrade	
304	Emadimeni	99136 Street	Lower Molweni	350	9	Western	Insitu Upgrade	Approved
305	Panekeni	Layby Road	Fredville / Esikhelekehleni	855	4	Western	Insitu Upgrade	
306	Madwaleni	Layby Road	Fredville	334	4	Western	Insitu Upgrade	

307	Diphini	Old Main Road	Fredville	453	4	Western	Insitu Upgrade	
308	Harare 1	Layby Road	Fredville	175	4	Western	Insitu Upgrade	
309	Gasa Section	Layby Road	Fredville	96	4	Western	Insitu Upgrade	
310	KwaCele / Ethembeni	65006 Street	Fredville	750	4	Western	Insitu Upgrade	
311	Ediphini Section	MR461 Road	Salem Community	158	7	Western	Rural	
312	Ezakhiweni / Wawa	MR461	Salem Community	300	7	Western	Insitu Upgrade	
313	Emangabazini / KaGogodwayo	MR461	Salem Community	300	7	Western	Insitu Upgrade	
314	Kontinga	MR46	Salem Community	180	7	Western	Insitu Upgrade	
315	Egwadeni Section	48105 Street	Salem Community	130	7	Western	Rural	
316	Emagezeni	48105 Street	KwaNdengezi / Salem Community	222	7	Western	Rural	
317	Esikhelekehleni 2	D1004	Sithumba	48	4	Western	Insitu Upgrade	
318	Esivivaneni	ZD615 Road	Mpumalanga-East / Ntshongweni / Mandlakazi	48	6/7	Western	Insitu Upgrade	
319	Embo (new)	Nqotho Road	Mkholombe	417	8	Western	Insitu Upgrade	
320	Mpuma	Layby Road	Fredville / Sithumba	1115	4	Western	Insitu Upgrade	
321	Protea	Benares Road / Diza Road	Bothas Hill / Mkholombe	490	8	Western	Insitu Upgrade	
322	Amawoti-Angola	District Road No.787	Amawoti / Goqokazi	1338	53/56	Northern	Insitu Upgrade	Approved
323	Dunstan Garden/ Senzokuhle	North of M19	Reservoir Hills	45	23	Western	Relocation	Approved
324	Pemary Ridge/ Mpolweni	Pemary Ridge	Reservoir Hills	160	23	Western	Insitu Upgrade	
325	Cato Crest	Vusi Mzimela Road	Cato Crest / Cato Crest - Open Space	5287	30/101	Southern	Insitu Upgrade	Approved
326	Frasers	D433	Greylands	397	62	Northern	Relocation	
327	Greylands phase 2 (Magwaveni)	Greylands Road	Greylands	1223	62	Northern	Insitu Upgrade	
328	RoodeKrans 828 / Hazelmere Dam	P239 / Track 83699	Hazelmere	715	60	Northern	Relocation	

329	Redcliffe 1 (Hilltop & KwaShabalala)	Hilltop Drive / Kingfisher Crescent	Redcliffe	352	60/59	Northern	Insitu Upgrade	
330	Buffelsdraai	Buffels Drive	Buffelsdraai	1124	59	Northern	Insitu Upgrade	
331	Blackburn Village	Track No. 67102	Ottawa Agricultural	1916	102	Northern	Insitu Upgrade (Proposed Relocation)	Approved
332	EX14 (Jabulani)	Vukayibambe Street / Imfongosi Drive	Umlazi E / Umlazi C / Umlazi B	220	81	Southern	Insitu Upgrade	
333	BX5 (Happy City)	Street No. 223	Umlazi B	113	80	Southern	Insitu Upgrade	Approved
334	Bulbul Drive	Bulbul Drive	Bulbul	3	69	Southern	Relocation	
335	PX4	Bhubhubhu Road / Phambili Road / Mkhiwane Road	Umlazi P / Umlazi Q	87	85	Southern	Insitu Upgrade	
336	ZX2	South Spinal Road / Malusi Cele Avenue	Umlazi Z	132	86	Southern	Insitu Upgrade	
337	ZX1	Mzwandile Close	Umlazi Z	15	86	Southern	Insitu Upgrade	
338	N3	Mbhele Place	Umlazi N	194	82	Southern	Insitu Upgrade	
339	CC (Esidweni)	South Spinal Road	Umlazi CC / Umlazi K Ext / Umlazi AA / Umlazi BB	1540	84	Southern	Insitu Upgrade	Approved
340	Welbedacht East	Welbedacht Road	Welbedacht	692	77/72	Southern	Insitu Upgrade	Approved
341	Rockdale (Ndengezi Informal)	Ndonsa Road/ Makhathini Drive	KwaNdengezi	879	12	Western	Insitu Upgrade	
342	Gede Section	A3768 Road	Salem Community	117	7	Western	Insitu Upgrade	
343	Umlazi J Station	King Dingane Road	Umalzi J / Umlazi M	228	83/77	Southern	Insitu Upgrade	
344	MX15	Griffiths Mxenge Highway / Emthethweni Road	Umlazi M	70	83	Southern	Insitu Upgrade	
345	K2	Sangcobe Road	Umlazi k	16	78/83	Southern	Insitu Upgrade	
346	Nyathela Rd	Nyathela Roadd	Umlazi P	17	85	Southern	Insitu Upgrade	
347	Rd 107164 Umlazi Z	107164 Street / Gum Tree Crescent	Umlazi Z	30	86	Southern	Insitu Upgrade	
348	Q16	Maviyo Road / Mkhiwane Street	Umlazi Q	169	87	Southern	Insitu Upgrade	Approved
349	Umlazi R	Mayibuye Road	Umlazi R	37	82	Southern	Insitu Upgrade	
350	Pumphouse	Higginson Highway	Welbedacht	72	72	Southern	Insitu Upgrade	

351	Thirthy Second	Thirthy Second Avenue / P Tshabalala Avenue	Clermont	60	92	Western	Insitu Upgrade	
352	Fortieth Ave	Forteith Avenue	Clermont Umngeni	65	92	Western	Insitu Upgrade	
353	Gomora	Thirthy Third Avenue	Clermont Emngeni	124	92	Western	Insitu Upgrade	
354	Kwadebeka 1 A	Khululeko Road	Kwadabeka	269	22/20/92	Western	Insitu Upgrade	
355	Sub 5 (BA)	Wyebank Road / Khululeka Drive	KwaDabeka	62	19	Western	Insitu Upgrade	
356	Meyiwa Main	Meyiwa Main Rd	Mpumlanga West	112	6	Western	Insitu Upgrade	
357	Quarry Road West	Quarry West Road	Palmiet	940	23	Northern	Relocation	Approved
358	KwaDukuza	Solomon Mahlangu Highway	Bellair	34	65	Southern	Relocation	
359	Banana City	Westdene Terrace	University of Durban-Westville	396	23	Northern	Insitu Upgrade	Approved_Constr 09/2016
360	Kwamashu A Hostels	Malandela Road / Musa Road	Kwamashu A	10000	39/40/46	Northern	Insitu Upgrade	
361	Lusaka Training College	Rainbow Circle / Moorton Drive / Silvermount Circle	Welbedacht	787	72	Southern	Relocation	
362	Houghton Road (Khayelisha)	Houghton Road	Clairwood	200	32	Southern	Relocation	Approved
363	Coedmore	Unit Avenue	Seaview	60	64	Southern	Relocation	Approved
364	Umhlathuzana Rd	Seaward Road	Seaview / Coedmore	22	64	Southern	Relocation	
365	Sirdar Road	Sirdar Road	Clairwood	70	32	Southern	Relocation	Approved
366	DSW Tip Site (Tara Road)	Tara Road	Van Riebeeck Park	13	66	Southern	Relocation	
367	Trenance Park 4A	Trenance Park Drive	Trenance Park	148	59	Northern	Insitu Upgrade	
368	MATLOCK GROVE	Matlock Grove	Sparks	25	31	Northern	Relocation	
369	Crossmoor Road	Crossmoor Road	Chatsworth	196	71	Southern	Insitu Upgrade	
370	Kloof Ext 15 + Exr 21 ph 3	First Avenue / Aloe Avenue	Wyebank	657	19	Western	Insitu Upgrade	
371	Ivy Close	Ivy Close / Begonia Drive / Aster Drive	Redcliffe	194	60	Northern	Insitu Upgrade	
372	Redcliff (Canelands/Parkridge)	Hazelmere Drive	Redcliffe	1426	60	Northern	Insitu Upgrade	
373	Recliffe Cross Road	Cross road / Quarry Road	Redcliffe	166	60	Northern	Insitu Upgrade	
374	Redcliffe Oakford Rd	Oakford Road	Redcillfe	27	60	Northern	Insitu Upgrade	

375	Redcliffe Sunkist Dr	Sunkist Drive	Redcliffe	21	59	Northern	Insitu Upgrade	
376	Canelands 2	610308 Street	Canelands	41	61	Northern	Relocation	
377	Siyanda VN Naiker School	Inanda Rd / Malandela Road / Dumisani Makhaye Drive	Siyanda Camp	614	41	Northern	Insitu Upgrade	Approved
378	Emapeleni Project / Shayamoya / Amakrosini / Ezimbileni	Thirty Fourth / Eighteenth Avenues	Clermont	1512	22	Western	Insitu Upgrade	Approved
379	Lungelani	Lobelia Crescent	Tongaat Beach	291	58	Northern	Insitu Upgrade	
380	Pholani	Ocean View Road / Leo Boyd Highway	Tongaat Beach	200	58	Northern	Relocation	Approved
381	Thuthukani (Sea Tide)	Genazzano Road	Tongaat Beach	435	58	Northern	Relocation	Approved
382	Ocean Drive	Ushukela Drive	Oceans	50	58	Northern	Relocation	Partially relocated to Hammond's farm
383	BX5	Street No. 224 / Street No. 226	Umlazi B	99	80	Southern	Insitu Upgrade	Approved
384	Progress Place	Demat Road / 200382 Street	Demat	1187	72	Western	Insitu Upgrade	
385	Demat (Damede)	Demat Road	Demat	889	72	Western	Insitu Upgrade	
386	Ekuthuleni (Sea View)	Solomon Mahlangu Highway	Seaview / Bellair	34	65	Southern	Relocation	
387	Esontweni	Grace Place	Bellair	12	65	Southern	Relocation	
388	H1 (Enkanini)	Kind Dingane Road	Umlazi M / Umlazi H	46	83	Southern	Relocation	
389	White City 2 / Emzomusha	Gugu Ngubane Street	Langalibalele	9	57	Northern	Insitu Upgrade	Approved
390	Emona	82076 Street	Emona / Buffels Kloof	162	61	Northern	Relocation	
391	KwaDabeka A Infill	Uhuru Drive / Hlala Kahle Walk	KwaDabeka	232	20	Western	Insitu Upgrade	Approved Refer to HP KwaDabeka Infill
392	Ntshingelana Way	Uhuru Drive / Ntshingelana Way	KwaDabeka	112	92	Western	Insitu Upgrade	
393	N-Fields	Themba Cele Place / Intokomalo Road	KwaDabeka	160	20	Western	Insitu Upgrade	
394	FX3 (Moscow)	Ilembe Crescent / Gugu Dube	Umlazi F	100	79	Southern	Insitu Upgrade	Approved

		Street						
395	FX3 (Phola Park)	Cyril Zulu Grove / Ilembe Crescent	Umlazi F	108	79	Southern	Insitu Upgrade	Approved
396	HX5	Lucky Street	Umlazi H	82	77	Southern	Insitu Upgrade	Approved
397	Sukuma (Z)	South Spinal Road / Simalane Drive	Umlazi Z / Umlazi AA	21	85	Southern	Relocation	
398	BB 868	Maphitha Close	Umlazi BB	85	84	Southern	Insitu Upgrade	
399	New Glasgow Ematendeni Canelands	New Glasgow Road / Second Avenue / Old Mill Way / Station Rd	Canelands	188	61	Northern	Relocation	
400	Section G & G extension	King Bhekuzulu Drive / Zenda Road	Ntuzuma G & G Ext./ Newtown B & B Ext.	859	55/42	Northern	Insitu Upgrade	Approved
401	Old & New Dunbar (Wiggins)	New Dunbar Road / Hlelabar Grove	Wiggins-Dunbar	1966	29/30	Southern	Insitu Upgrade	Approved
402	GX7 (Danisa Village)	Esduardo Mondlane	Umlazi G	127	79/82	Southern	Insitu Upgrade	Approved
403	H7	Senzangakhona Road	Umlazi H	78	77	Southern	Insitu Upgrade	Approved
404	KwaNogxaza	99598 Street	Lower Molweni	178	9	Western	Insitu Upgrade	
405	Langalibalele (2)	Malibongwe Drive	Langalibalele	51	55	Northern	Insitu Upgrade	Approved
406	Minitown	Mthoko Mkhize Road	Georgedale / Mpumalanga-East	708	5/6	Western	Insitu Upgrade	
407	Mpola Phase 3	Milky Way	Thornwood & Tshelimnyama-Mpola	951	15	Western	Insitu Upgrade	
408	Simunye Triangle (Newtown B)	Zimnene Road	Newtown B / Newtown B Ext.	178	55	Northern	Insitu Upgrade	
409	Tshelimnyama phase 3 (Overspill)	Umhlathuzana Road	Tshelimnyama-Mpola	295	15	Western	Insitu Upgrade	Approved
410	V2/V3/V 4	Madiva Mbutho Road	Umlazi V	364	80	Southern	Insitu Upgrade	Approved
411	Buldana Road	Buldana Road	Merewent	29	68	Southern	Relocation	
412	Electron Road	Electron Road	Springfield	16	25	Northern	Relocation	
413	Amawoti-Moscow	District Road No.403	Amawoti / Amaotana	1386	59/53	Northern	Insitu Upgrade	Approved
414	Amawoti-Lybia - Palastine	District Road No.403	Amawoti / Etafuleni	759	53/56	Northern	Insitu Upgrade	Approved
415	Amawoti-Nigeria	District Road No.403	Amawoti	1403	59/53	Northern	Insitu Upgrade	Approved

416	Amawoti-Lusaka	District Road No.403	Amawoti	2452	53	Northern	Insitu Upgrade	Approved
417	Amawoti-Namibia	District Road No.403	Amawoti / Etafuleni	1329	53/56	Northern	Insitu Upgrade	Approved
418	Amawoti-Zambia	District Road No.403	Amawoti	534	57	Northern	Insitu Upgrade	Approved
419	Amawoti-Geneva	District Road No.403	Amawoti	1036	57	Northern	Insitu Upgrade	Approved
420	Amawoti-Mozambique	Street No. 121565	Amawoti / Goqokazi	535	57/56	Northern	Insitu Upgrade	Approved
421	Amawoti-Tanzania	District Road No.403	Amawoti	1745	57/53	Northern	Insitu Upgrade	Approved
422	Zamani 2	Gwacela Road / Dlamini Road	Mpumalanga-East	133	91	Western	Insitu Upgrade	Approved Refer to HP Zamani Phase 2B
423	Lower Thornwood	Thornwood Road / Greyvillea Road / Solandra Crescent	Madiba Valley	416	13	Western	Insitu Upgrade	
424	Ohlange	Curnick Ndlovu Highway	Ohlange-Africa / Langalibalele / Mshayazafe	160	55	Northern	Insitu Upgrade	Approved
425	St Wendolins Ridge	St. Wendolins Road	St Wendolins	631	16/17	Western	Insitu Upgrade	Approved Refer to HP St Windolins Ridge Ph 2
426	Richmond Farm B	Mpangele Road / Ntuzuma Main Road / Sambane Crescent	Ntuzuma A / Ntuzuma B / KwaMashu N	2236	45/38/41	Northern	Insitu Upgrade	
427	Ziweni	Magangane Magwaza Road	Greylands	32	62	Northern	Relocation	
428	Ndliyomlilo	Van Rova Road	Buffels Kloof & Emona	384	61	Northern	Insitu Upgrade	
429	Tshelimnyama Phases 1 & 2	Umhlathuzana Road / MR559	Tshelimnyama-Mpola	6804	15	Western	Insitu Upgrade	
430	GX5 (Ekuthuleni)	Igwababa Crescent / Iphothwe Lane	Umlazi G	181	79	Southern	Relocation	
431	GX10	Tsitsi Mashinini Road / Sbusiso Mkhize Place	Umlazi G	700	79/82	Southern	Insitu Upgrade	
432	F9 (Phila)	Ntonto Mkhize Grove	Umlazi F	10	81	Southern	Relocation	
433	BX2 (Ezwini)	Dlangisa Avenue	Umlazi B	71	81	Southern	Relocation	

434	U9 (Zamani)	Sbu Mangwanyane Drive / Kwezincane Circle	Umlazi U / Malukazi	610	89	Southern	Insitu Upgrade	
435	GX1	Chester Cele Crescent/ Indlulamithi Crescent	Umlazi G	82	79	Southern	Insitu Upgrade	
436	Unity Avenue	Lenny Naidu Drive / Unity Avenue	Bayview	667	69	Southern	Relocation	
437	Zibuse	400178 Street	Hammersdale - Sterkspruit	221	4	Western	Insitu Upgrade	
438	L12	1103 Street	Umlazi L	50	83	Southern	Relocation	
439	V10	Peace Road / Sbusiso Mdakane Drive	Umlazi A	97	80	Southern	Insitu Upgrade	
440	Higginson Highway	Higginson Highway	Welbedacht	18	72	Southern	Insitu Upgrade	
441	Motala heights 2	Motala Road	Motala Heights	74	15	Western	Insitu Upgrade	
442	Ekuthuleni	Ndosi Place / Bhekilanga Place / Mthimkhulu Avenue	Wyebank	456	19	Western	Insitu Upgrade	
443	Valley View	Valley View Drive	Redcliff	290	60	Northern	Insitu Upgrade	
444	Greylands 82101 TRK	Track 82101	Greylands	49	62	Northern	Relocation	
445	Ezikrebheni / Umgeni Flood plain	Clare road	Sparks	40	25	Western	Relocation	
446	Manyaleni	Lenny Naidu Drive	Bayview	200	69	Southern	Insitu Upgrade	
447	Kenville Village (NCP)	Sea Cow Lake Rd	Briardene	59	34	Northern	Relocation	Approved
448	DX10	Griffiths Mxenge / Hambakahle Mkhonto/ Sbonakaliso Mchunu	Umlazi D	89	88	Southern	Relocation	
449	DX5 (Gospel City)	Hambakahle Mkhonto Road	Umlazi D	76	87	Southern	Relocation	
450	Katshi	Demat Road / Intake Road	Demat	682	72	Western	Insitu Upgrade	
451	Mathe	Mate Place	Lamontville	24	74	Southern	Insitu Upgrade	
452	Savanha Place	Ntuli Road	Lamontville	24	74	Southern	Relocation	
453	Damede 2	200267 Street / Higginson Highway	Savannah Park	45	17	Western	Insitu Upgrade	
454	HX1	King Dingane Road/ 120732 Street	Umlazi H / Umlazi N	263	82	Southern	Relocation	Approved
455	Thirteenth Street	Thirteenth Street	Clermont	35	21	Western	Relocation	
456	Twenty Eighth Ave	Twenty Eight Avenue / P	Clermont	204	92/21	Western	Insitu Upgrade	

	(Emagundaneni/KwaNene)	Tshabalala Avenue						
457	Chris Hani A (Zikungweni)	Zikungweni Place	Lamontville	60	74	Southern	Insitu Upgrade	
458	Josilina (Imvuzane)	Zazi Road / First Street	Clermont / KwaDabeka	64	19	Western	Insitu Upgrade	
459	Bend	Clermont Road / Bend Street	Clermont Umngeni	73	92	Western	Insitu Upgrade	
460	Q3	Umdlebe Road / Mnyezane Street	Umlazi Q / Umlazi T	1006	87	Southern	Insitu Upgrade	
461	Stmote 2	83239 Trk & 300066 Str	Clanstal	23	99	Southern	Relocation	
462	Ensimbini	Velawig Avenue / Nubian Avenue	Wiggins-Dunbar	164	29	Southern	Insitu Upgrade	
463	F3	Khobo Makhobo Place / Zanele Msani Road	Umlazi F	20	81	Southern	Relocation	
464	Riverview	Qhakaza Grove	Greylands	31	62	Northern	Relocation	
465	Zamokuhle	Wyebank Road / Zamokuhle Road	Wyebank	396	19	Western	Insitu Upgrade	
466	Unit BA McBride (Sub 5)	First Street	KwaDabeka / Clermont	20	19	Western	Relocation	
467	Unit R North (Sub 5)	Icena Place	Wyebank / KwaDabeka	25	19	Western	Insitu Upgrade	
468	EX4 (Thokoza)	109155 Street	Umlazi E	105	80	Southern	Insitu Upgrade	
469	Zamani 2A	Sibisi Road / Dimba Road	Mpumalanga-East	384	91	Western	Insitu Upgrade	Approved Refer to HP Zamani Phase 1A & 2A
470	Madiba Valley	50416 Street	Madiba Valley	284	13	Western	Insitu Upgrade	
471	Constantine Rd	Constantine Road	Clare Hills	60	25	Northern	Relocation	
472	Sir Kumar Reddi Rd	Sir Kumar Reddi Road	Clairwood	65	32	Southern	Relocation	Approved
473	Intake Rd	Intake Road	Demat	846	72/100/13	Western	Insitu Upgrade	
474	Nazareth	Dlamini Street	Nazareth	143	16	Western	Relocation	
475	Zwelibomvu 5	A531 / D1011	Zwelibomvu	446	100	Western	Rural	
476	Zwelibombvu rural residential new upgrade	Unamed Gravel Route	KwaNtamntengayo	3	100	Western	Rural	

477	Zwelibombvu 2 rural residential new upgrade	Unamed Gravel Route	KwaNtamntengayo	3	100	Western	Rural	
478	zwelibombvu 3	MR489	KwaNtamntengayo	118	7	Western	Rural	
479	Zwelibomvu 4	MR489	Zwelibomvu	1383	7/100	Western	Rural	
480	Kwashozi- Mazungu	P212 / Nkanyisweni Roads	Adams Rural/ Madundube	3352	96/67	Southern	Rural	
481	Umnini	N2 Freeway	Umgababa / Dangaya	4672	98/99	Southern	Rural	Approved
482	Inanda Mission Reserve Mqhawe	Mzunjani Drive / P138 / Eskebheni Road	Matabetule/ Mgangeni / Phola-Amatikwe / Senzokuhle / Emachobeni etc	13377	3/44/56	Northern	Rural	
483	Embo phase 2	Nqotho Road / Nhlangano Road	Mkholombe	1161	8	Western	Rural	
484	Paradise Valley	N3 / Eden Road	Sarnia	8	18	Western	Relocation	
485	Frasers Extension	Track 82095	Greylands	30	62	Northern	Relocation	
486	BX 4 / B X 7 (Ethenisini)	Road no 222 / Fred Gwala Close	Umlazi B / Umlazi D	103	88	Southern	Insitu Upgrade	
487	Frasers Zikhali/Smamane	Unnamed Road	Greylands	65	62	Northern	Relocation	
488	Annet Drive	Annet Drive	Reservoir Hills	20	23	Western	Relocation	Approved
489	Mpola Phase 2	200213 Street / 201191 Street	Tshelimnyama-Mpola	600	15	Western	Insitu Upgrade	Approved
490	Tshelimnyama phase 4	MR559 / 200208 Street	Tollgate / Tshelimnyama-Mpola	1036	15	Western	Insitu Upgrade	
491	KwaMashimane Valley View	Valley View Road	Redcliffe	37	59	Northern	Insitu Upgrade	
492	Bhambayi Ghandi Settlement	Ntombi Mbiko Street	Bhambayi	299	57	Northern	Insitu Upgrade	Approved
493	Burlington station Overspill	Street No. 38203	Burlington	112	65	Western	Relocation	
494	K Buffer	Phothwe Road	KwaMashu K / Ntuzuma B	132	45/41	Northern	Insitu Upgrade	
495	Dassenhoek - Block G	Track 75199	Dassenhoek Rural	668	14	Western	Insitu Upgrade	
496	Amawoti-Zimbabwe	Westham Drive	Amawoti	576	53	Northern	Insitu Upgrade	Approved

497	Malukazi (Lower)	Sbu Magwanyane Road	Malukazi	3122	89/90	Southern	Insitu Upgrade	Approved
498	Malukazi (Upper)	Ithambo Avenue	Malukazi	1260	89/86	Southern	Insitu Upgrade	Approved
499	Ratcliffe Drive	Ratcliffe Drive	Bellair	7	65	Southern	Relocation	
500	Maphephetheni	Mbeje Drive / Amatata Drive	Mgangeni / Imbozamo	1729	2	Western	Insitu Upgrade	
501	Ngcolosi	Ngwele Road / MR259	Mshazi / Lower Molweni	1371	8/9	Western	Insitu Upgrade	
502	B10 Lusaka Overspill	Majubeni Groove / Masijabule Lane	Umlazi B	283	81/80	Southern	Relocation	
503	B22 (Umgwaqo Ongayindawo)	Clermont Road	Clermont Emngeni	123	22/92	Western	Insitu Upgrade	
504	Burlington Station/ White City	Burlington Road	Burlington	121	65	Western	Relocation	
505	Umlazi - F1 Overspill	Inkanyamba Road	Umlazi G / Umlazi F	28	79	Southern	Relocation	
506	KwaMnyandu (13)	1603 Street	Umlazi T	52	89	Southern	Insitu Upgrade	
507	Carlifornia/Ekuthuleni/ Bhekilanga	California Drive	Wyebank	99	19	Western	Insitu Upgrade	
508	Emalangeni	Sibisi Road	Mpumalanga East / Mandlakazi	600	6/91/7	Western	Insitu Upgrade	Approved
509	HX3	109136 Street / Bheki Mkhasibe Road	Umlazi H	290	77	Southern	Insitu Upgrade	Approved
510	H3 / H17	Tsitsi Mashinini Road / 107931 Street	Umlazi H	180	82/79	Southern	Insitu Upgrade	
511	Emgodini	Daffodil Place	Umgeni Park	58	58	Northern	Insitu Upgrade	
512	Briardene-Overspill	Daffodil Place / Banana Grove	Umgeni Park	17	52	Northern	Insitu Upgrade	
513	Kwamancinza	Mqhawe Drive / Egugwini Street / Mpala Avenue	KwaMashu N	680	45	Northern	Insitu Upgrade	
514	Lindelani	Ntuzuma Main Road	Ntuzuma D-Lindelani	2282	43/38	Northern	Insitu Upgrade	Approved
515	Mississippi (Amanzimyama Stream)	Inkosi Albert Luthuli Freeway / Amanzimnyaa Stream	Clairwood	12	32	Southern	Relocation	Approved
516	Maponya / Nkusi	Maponya Street / Nkosi Avenue	Umlazi N	30	82	Southern	Insitu Upgrade	
517	Ngqayizivele	Njabulo Zamisa Street	Umlazi D	30	88	Southern	Relocation	

518	Curnick Ndlovu	Curnick Ndlovu (KwaMashu) Highway	Ohlange / Mafukuzela	85	55	Northern	Insitu Upgrade	
519	Forest Land Rural residential	Patna Road	Bothas Hill	32	8	Western	Rural	
520	Cato Crest Greenland	Vusi Mzimela Road	Cato Crest / Cato Crest - Open Space	167	30/101	Southern	Insitu Upgrade	Approved
521	Riet Rivier	Saturn Road	Riet Rivier/Ottawa / Trenance Park	51	59	Northern	Relocation	
522	Mount Venon	Venus Road	Riet Rivier/Ottawa / Trenance Park	46	59	Northern	Relocation	
523	Ezinkawini	20330 Street / Venus Road	Riet Rivier/Ottawa / Trenance Park	71	59	Northern	Relocation	
524	Mfene City (BX4/BX7 (Ethenisini) Overspill)	Baphelabantu Street	Umlazi B / Umlazi D	68	88	Southern	Insitu Upgrade	
525	KwaMnyandu (12)	1603 Street	Umlazi T	52	89	Southern	Insitu Upgrade	
526	Bux Farm	Cnr Cliffdale Rd and Rd 400521	Bux Farm	145	103	Western	Relocation	
527	Demat	Demat rRoad	Demat	103	72	Western	Insitu Upgrade	
528	Investigate - Maphumulo Gwala	Guerilla	Umlazi E	23	80	Southern		
529	Magabheni	Sibhakada Road	Magabeni	16	99	Southern	Relocation	
530	H1	Sokesimbone Road	Umlazi H	37	83	Southern	Relocation	
531	Ntuzuma B	Mpisi Rd	Ntuzuma B	24	38	Northern	Relocation	
532	Drift	Drift Road	Canelands	60	61	Northern	Insitu Upgrade	
533	Canelands Hilltop (Old Main Road)	Old Main Road	Canelands	110	61	Northern	Insitu Uprade	
534	Ebasutwini/Enkundleni Enkulu	Thirty Fourth Avenue	Clermont	50	22	Western	Relocation	
535	Sastri Road Settlement	Sastri	Clairwood	50	32	Southern	Relocation	
536	Cherry Road Settlement	Cherry	Clairwood	40	32	Southern	Relocation	
537	Woody Glen Overspill	561 Street/Embuthweni Road/Buthelezi Street	Mpumalanga-East	205	91	Western	Insitu Upgrade	
538	Ezibovini/Zone 4	414 Street/Ximba Road	Mpumalanga-East	110	91	Western	Insitu Upgrade	Approved

539	Eqgumeni	Sibisi Road/ 645 Street	Mpumalanga - East	231	91	Western	Insitu Upgrade	
540	Mount Vernon/Heathcote	Heathcote	Umhlatuzana	80	65	Southern	Relocation	
541	Investigation Redcliffe Esihlahleni	Jabu Ngcobo	Redcliffe	80	59	Northern	Insitu Upgrade	
542	Investigate Lucky Lushaba	Lucky Lushaba/Gybon Mpanza	Umlazi A	30	80	Southern		
543	Engojeni Ka Santi	Gravel Road 50395	Southmead	20	16	Western	Insitu Upgrade	
544	Investigate Umbhayi EXT	Gravel Road 82086	Buffels Kloof	0	61	Northern		
545	Investigate Rd 82090	Road 82090	Tongaat South	0	61	Northern		
546	B5	Road 106296	Ntuzuma A	50	41	Northern	Insitu Upgrade	
547	Investigate AMT Industrial	Mkhize Road / unnamed gravel road	Adams Mission	0	59	Western		
548	A1 Mpumalanga	Mofokeng Road	Mpumalanga-West	164	6	Western	Insitu Upgrade	
549	Amawoti-Cuba	District Road No.403	Amawoti	1327	53	Northern	Insitu Upgrade	Approved
550	Madiba (Bottlebrush)	Shallcross Road / Lichen Road / Papaver Place	Bottlebrush / Shallcross / Crossmoor / Woodhurst	3000	71	Southern	Insitu Upgrade	Approved
551	Madiba (Bottlebrush) Overspill	Shallcross Road / Lichen Road / Papaver Place	Bottlebrush / Shallcross / Crossmoor / Woodhurst	1200	71	Southern	Relocation	
552	Dalton Settlement	Cnr Dalton and Sydney Road	Congella	0	32	Southern		
553	Lotus Park Settlement	Silvergull	Lotus Park	100	90	Southern	Relocation	
554	Simplace	Sim Place / Effingham Road	Kenville	1040	34	Northern	Insitu Upgrade	Approved
555	Simplace Relocation	Sim Place / Effingham Road	Kenville	1040	34	Northern	Insitu Upgrade	Approved
556	Burnwood Road overspill	Burnwood / Candover Roads	Clare Hills / Springfield	538	25	Northern	Relocation	Approved
557	Umlazi - QX1/QX5	107938 Street	Umlazi Q	40	87	Southern	Insitu Upgrade	
558	Umlazi - QX1/QX5 Overspill	107939 Street	Umlazi Q	23	87	Southern		

LIST OF GREENFIELDS PROJECTS

Greenfields (Northern)								
No	**PROJECT NAME**	**ALTERNATE NAME**	**PROJECT TYPE**	**PRJTIMEFR**	**WARDS**	**SUBSIDIES**	**PROJECT YIELD**	**PLANUNITS**
1	Newtown		Greenfields	Complete	62	Approved	176	Greylands
2	Mount Moriah Phase 1 and 2b		Greenfields	Complete	102	Approved	1106	Piesangrivier Industrial / Piesangrivier Open Space
3	Westrich Phase 1 (1000) and 2(1300)		Greenfields	Complete	37 / 38	Approved	1000	Newlands West - Open Space / Ntuzuma A
4	Bellgate Tongaat Ext		Greenfields	Complete	61	Approved	250	Inyaninga
5	Brake Village		Greenfields	Complete	61	Approved	111	Kruisfontein-Westbrook
6	Riverdene		Greenfields	Complete	37	Approved	850	Newlands West Open Space / Newlands West Residential
7	Hambanathi Ext 3A & 3B		Greenfields	Complete	62	Approved	569	Hambanathi
8	Waterloo Phase 3		Greenfields	Complete	58	Approved	980	Waterloo / La Mercy Airport
9	Quarry Heights		Greenfields	Complete	11 / 102	Approved	2474	Melkhoute / Avoca Hills
10	Ntuzuma E		Greenfields	Complete	43	Approved	500	Ntuzuma E
11	Kwamashu C		Greenfields	Complete	41	Approved	350	Kwamashu C
12	S2 Quarry Heights		Greenfields	Complete	11	Approved	307	Melkhoute
13	Waterloo Phase 1, 2 & 4 incl excised sites		Greenfields	Complete	58	Approved	2408	Waterloo
14	Khulula		Greenfields		37 / 41	Approved	798	Newlands West - Residential Area / Siyanda camp / Ntuzuma A
15	Mzomuhle Parkgate	Parkgate	Greenfields	Complete	51	Approved	1477	Piet Rivier -Ottawa
16	Avoca Quarry - Corobrick Land		Greenfields	Complete	34	Approved	600	Melkhoute
17	Mount Royal		Greenfields	Complete	102 / 48	Approved	1081	Piesangrivier Open Space / Southgate Centenary Park
18	Habitat for Humanity (Sherwood)		Greenfields	Complete	30	Approved	300	Sherwood

19	Waterloo Phase 7		Greenfields	Complete	58	Approved	263	Waterloo
20	Waterloo Phase 5		Greenfields	Complete	58	Approved	766	Waterloo
21	Trenance Park 2A		Greenfields	Complete	60 / 59	Approved	303	Verulam West / Riet River/Ottawa / Redcliffe
22	Kwamashu L		Greenfields		45 / 42 / 47 / 43	Approved	1578	Kwamashu L / Ntuzuma F
23	Inanda Lots 63/10 & 227/63		Greenfields	Complete	56	Approved	54	Amatikwe
24	Greylands Housing Project Phase 1	Greylands Housing Project	Greenfields	Complete	62	Approved	1000	Greylands
25	Etafuleni Phase 2		Greenfields		56 / 59 / 53	Approved	1200	Etafuleni/ Amawoti/ Buffelsdraai/Tea Estate
26	Trenance Park 2C		Greenfields	Complete	60	Approved	156	Redcliffe
27	Burbreeze		Greenfields		62	Approved	331	Greylands
28	Kwamashu E		Greenfields	Complete	46	Approved	152	Kwamashu E
29	Hammonds Farm		Greenfields		58	Approved	2050	La mercy Airport
30	Waterloo Land Release Phase 6		Greenfields	Complete	58	Approved	850	La Mercy Airport / Waterloo
31	Cornubia Phase 1B	Cornubia Phase 1	Greenfields		102	Approved	2263	Ottawa South
32	Aberfoyle (Buffelskloof)		Greenfields		61 / 62		5000	Buffels Kloof
33	Inyaninga West	Inyaninga includes Tongaat South West	Greenfields		61		4000	Inyaninga
34	Avoca North (Caneridge)	Glen Anil	Greenfields		102		5000	Mount Edgecombe
35	Ntuzuma D		Greenfields		38		2100	Ntuzuma D - Lindelani
36	Redcliffe South		Greenfields		60 / 59		2800	Redcliffe / Verulam West
37	Wewe		Greenfields		62		1000	Wewe/Greylands
38	Cornubia Phase 2		Greenfields		102		9488	Ottawa Agricultural / Hawaan / Waterloo
39	Barton Road		Greenfields		23		324	Palmiet
40	Dodoma Road		Greenfields		25		58	Clare Hills
41	Belvedere Ext.	Belvedere Extension	Greenfields		61	Approved	549	Buffels Kloof
42	eMtshebheni	Namibia Stop 8	Greenfields		56 / 44	Approved	779	Inanda-Congo / Amatikwe / Stop 8

		Phase 1/ Haffejee's Land-eMtshebheni /eMtshebheni (Haffejees Land)						
43	Motala's Farm West	Motala's Farm	Greenfields		61		2000	Emona / Hambanathi Ext / Buffels Kloof
44	Inyaninga East	Flamingo Heights	Greenfields		61 / 58		6120	Inyaninga / La Mercy Airport / Kruisfontein - Westbrook
45	Hazelmere East		Greenfields		60 / 61		3000	Hazelmere
46	Redcliffe North	Redcliffe - Parkridge	Greenfields		60		4000	Redcliffe
47	Dudley Pringle East	Pringle Dam	Greenfields		62		2500	Greylands
48	Umdloti North		Greenfields		58		1500	La Mercy Airport
49	Mount Moreland South		Greenfields		58		1500	La Mercy Airport
50	La Mercy		Greenfields		58		3000	La Mercy Airport
51	Cornubia North		Greenfields		58 / 102		10000	La Mercy Airport / Hawaan / Ottawa Agricultural
52	Gwalas Farm Extension		Greenfields		61/ 60		1000	Hazelmere / Tongaat South
53	Cottonlands East		Greenfields		61/ 60		1000	Hazelmere / Inyaninga / Redcliffe
54	Cornubia Phase 1A		Greenfields		102	Approved	486	Ottawa South
55	Lindokuhle New		Greenfields		62		1000	Wewe / Hambanathi Ext / Hambanathi / Greylands
56	Cornubia Phase 1B (3)		Greenfields		102		803	Ottawa South
57	Cornubia Phase 1B (1)		Greenfields		102		642	Ottawa South
58	Cornubia Phase 1B (2)		Greenfields		102		742	Ottawa South

Greenfields (Southern)								
No.	**PROJECT NAME**	**ALTERNATE NAME**	**PROJECT TYPE**	**PRJTIMEFR**	**WARDS**	**KZNDHSSTAT**	**PROJECT YIELD**	**PLANUNITS**
1	Kwamakhutha A		Greenfields		94	Approved	341	Kwamakhutha
2	Kwamakutha Housing phase 2		Greenfields	Complete	67/94	Approved	666	Kwamakhutha

3	Folweni C		Greenfields	Complete	95	Approved	456	Folweni
4	Austerville		Greenfields		67	Approved	18	Treasure Beach
5	Lovu phase 3 1A		Greenfields	Complete	97	Approved	564	Illovo North
6	Lovu phase 4/2B & 5/3B		Greenfields	Complete	98	Approved	1600	Illovo North
7	Lovu phase 5/1B		Greenfields	Complete	98	Approved	813	Illovo North
8	Lovu 4/5		Greenfields	Complete	98	Approved	650	Illovo North / Illovo South
9	Chesterville Extension phase 1		Greenfields	Complete	29	Approved	499	Chesterville
10	Chesterville phase 2 &3		Greenfields	Complete	29	Approved	589	Ridge View
11	Philani Valley Phases 1 to 6	Philani Vallei Phases 1 to 6	Greenfields	Complete	86	Approved	313	Umlazi Y
12	Philani Valley Phases 7 to 9	Philani Vallei Phases 7 to 9	Greenfields	Complete	86	Approved	312	Umlazi Y
13	Philani Valley Phases 15 to 16	Philani Vallei Phases 15 to 16	Greenfields	Complete	86	Approved	246	Malukazi
14	Roseneath Gardens		Greenfields	Complete	99	Approved	236	Clansthal
15	Hull Valley		Greenfields		99	Approved	510	Clansthal
16	Kingsburgh West	Kingsburgh West (Lovu Ph 6)	Greenfields		98 / 67	Approved	1400	Illovo North
17	Philani Valley Phases 17 to 25	Philani Vallei Phases 17 to 25	Greenfields	Complete	86	Approved	329	Malukazi / Umlazi Y
18	Philani Valley Phases 10 to 14	Philani Vallei Phases 10 to 14	Greenfields	Complete	86	Approved	538	Malukazi
19	Umkomaas 365 (Malundi)		Greenfields	Complete	99	Approved	418	Clansthal
20	Lamontville North West		Greenfields	Complete	69 / 74	Approved	281	Havenside / Lamontville
21	North and South Booth Road		Greenfields	Complete	24	Approved	440	Chesterville / Ridge View
22	Wiggins Fast Track		Greenfields	Complete	29	Approved	1040	Wiggins Dunbar / Umkumbaan Wiggins
23	Wiggins Phase 1 and 5		Greenfields	Complete	30 / 29	Approved	800	Wiggins Dunbar
24	Umkumbaan Wiggins Phase 2 (Technikon site, Freeway Slopes, Hospital)	Umkumbaan Infill phase 2	Greenfields		29	Approved	733	Umkumbaan
25	Sunnyside Park		Greenfields		67		5000	Adams Mission

26	Winkelspruit 1		Greenfields		98		0	Illovo South
27	Hull Valley West		Greenfields		99		6500	Clansthal
28	Stmote 3		Greenfields		99		6300	Clansthal / Craigieburn / Umkomaas
29	Bedford Avenue		Greenfields		65		1500	Bellair
30	Umkomanzi Drift 1357	London Farm GF	Greenfields		99		871	Craigieburn
31	Silvergull Drive		Greenfields		90		140	Lotus Park
32	Kanku Road-Isipingo		Greenfields		90		416	Isipingo
33	Craigieburn		Greenfields		99		332	Clansthal
34	Kings Rest Zanzibar		Greenfields		66		68	Grosvenor

Greenfields (Western)								
No.	**PROJECT NAME**	**ALTERNATE NAME**	**PROJECT TYPE**	**PRJTIMEFR**	**WARDS**	**KZNDHSSTAT**	**PROJECT YIELD**	**PLANUNITS**
1	New Germany East		Greenfields	Complete	21	Approved	161	Clermont
2	Mazakhele		Greenfields	Complete	13 / 15	Approved	68	Marianridge
3	Marianridge development		Greenfields	Complete	13	Approved	166	Marianridge
4	Nipper Road		Greenfields	Complete	21	Approved	74	New Germany Industrial
5	Siphumelele development (sub5)		Greenfields	Complete	19	Approved	150	Wyebank / KwaDabeka
6	New Germany West		Greenfields	Complete	21	Approved	516	Clermont
7	Mpumalanga Ext phase 1		Greenfields	Complete	4	Approved	300	Hammarsdale- Sterkspruit
8	Lower Langerfontein 1 and 2		Greenfields	Complete	9	Approved	1066	Langerfontein / Upper Molweni
9	Qadi Project phase 1		Greenfields	Complete	103	Approved	574	Forest Land
10	Kloof Extension 18		Greenfields	Complete	19	Approved	91	Wyebank
11	Kloof Rem 483 - phase 2		Greenfields	Complete	19	Approved	511	Wyebank
12	Rietvallei phase 1		Greenfields	Complete	4	Approved	208	Harrisons
13	The Makaphutu Childrens's Village		Greenfields		103	Approved	229	Forest Land
14	Nazareth Island & Gcibe		Greenfields	Complete	16	Approved	1503	AMT Industrial /Nazaerth
15	Umbhedula		Greenfields	Complete	17	Approved	526	Intake

16	Tshelimnyama Phase 3		Greenfields		15	Approved	1220	Tolgate / Tshelimnyama -mpola
17	Madiba Valley	Dassenhoek Phases 1,2 ,3	Greenfields	Complete	13	Approved	960	Madiba Valley
18	Kwadinabakubo Phase 1	Kwadinabakubo	Greenfields	Complete	9	Approved	353	Crestholme / Tin Town
19	Burlington Greenfields		Greenfields		65 / 71	Approved	542	Burlington / Shallcross
20	Mpumalanga Infill 2		Greenfields		91 / 6	Approved	300	Mpumalanga East
21	Mpumalanga G	Mpumalanga Infill 1 / Mpumalanga Unit G	Greenfields		6	Approved	151	Mpumalanga East
22	Mawelewele		Greenfields		17 / 72	Approved	850	Savanna Park
23	101 sites Kwadabeka		Greenfields	Complete	20	Approved	101	Kwadabeka
24	Ntshongweni Phase 2		Greenfields		7		492	Ntshongweni
25	Welbedacht West		Greenfields	Complete	72 / 77	Approved	2933	Demat / Welbedacht
26	Welbedgat Formal	Welbedgat West phase 1	Greenfields	Complete	72	Approved	960	Demat
27	Roosefontein		Greenfields		24 / 29		180	Pavillion / Ridge View / Chesterville
28	Bhekisiwe Thornwood		Greenfields	Complete	14	Approved	500	Thornwood / Madiba Valley
29	Savanna Park Phase 1 Stage 3		Greenfields		17	Approved	463	Savanna Park / St Wendolins
30	Mpumalanga Ext phase 2	Mpumalanga ext phase 1 & 2	Greenfields	Complete	4	Approved	392	Hammarsdale- Sterkspruit
31	Lower Langerfontein Phase 6		Greenfields		9		1166	Langerfontein / Crestholme
32	Harmony Heights GF		Greenfields		21	Approved	291	New Germany
33	Eastern buffer Extension		Greenfields		21	Approved	200	Clermont / New Germany
34	Emapheleni Phase 2 (Lot 3548)	Emapeleni Project	Greenfields		22	Approved	750	Clermont / Clermont Emngeni
35	Waterfall Phase 4	Molweni Phase 2	Greenfields		9		1350	Crestholme
36	Ngwele		Greenfields		8		852	Luke Balies farm
37	Shongweni South 1		Greenfields		7		0	Pinetown Rural
38	Shongweni South 2		Greenfields		7		0	Pinetown Rural / Salem Community
39	Maryvale		Greenfields		24		0	Pavilion
40	Madimeni		Greenfields		9	Approved	500	Langerfontein/ Lower molweni

41	Wyebank		Greenfields		19		0	Wyebank
42	Kwadinabakubo Phase 2 (Farm Berrel)	Kwadinabakubo	Greenfields		9	Approved	185	Crestholme

LIST OF SOCIAL HOUSING PROJECTS

PRJNAME	ALTPRJNAME	PRJTYPE	STATUS	WARDS	REGIONS	SUBSIDIES	YIELD	PLANUNITS
44 Lancers Road		Social Housing		28	Southern		300	Warwick
50 of Erf 8 Bridge City		Social Housing					245	
51 of Erf 8 Bridge City		Social Housing					238	
52 of Erf 8 Bridge City		Social Housing					165	
53 of Erf 8 Bridge City		Social Housing					145	
782 Umgeni Road		Social Housing					0	
Avoca Hills		Social Housing		102	Northern		520	Avoca Hills
Candella Road Flats		Social Housing		30	Southern		148	Bonela
Carlean	Albert Park Social Housing	Social Housing		32	Southern		32	Durban CBD West
Erf 6024 Verulam Ext 49		Social Housing					0	
Esselen		Social Housing		32	Southern		18	Durban CBD West
Hawaii East		Social Housing	Complete	26	Southern	Approved	92	Durban CBD East
Hawaii West		Social Housing		26	Southern		36	Durban CBD East
Howell Heights		Social Housing	Complete	25	Northern	Approved	48	Springfield
Howell Road		Social Housing	Complete	25	Northern	Approved	213	Springfield
Ikhaya Social Housing		Social Housing		29	Southern		265	Chesterville
Lake Haven I & II		Social Housing		34	Northern		584	Hippo Road
Martinez		Social Housing		26	Southern		44	Durban CBD East
Palm Beach Hotel		Social Housing - TO BE CONFIRMED		26	Southern		0	Durban CBD East
Port View		Social Housing		32	Southern		142	Durban CBD West
Portion 6 of Erf 2291 Durban		Social Housing					0	
Portions 13 of Erf 585 Fynnlands, Bluff		Social Housing					0	
Portions 14 of Erf 585 Fynnlands, Bluff		Social Housing					0	
River View		Social Housing		29 / 101	Southern		330	Umkumbaan / University 2

Rivertown Precinct		Social Housing		26	Northern		0	Durban CBD East
Russel Mansions		Social Housing		28	Southern		143	Durban CBD West
Seamans Building		Social Housing - TO BE CONFIRMED		26	Southern		0	Durban CBD East
Shayamoya	Shayamoya Housing project	Social Housing	Complete	30	Southern	Approved	318	Umkumbaan Wiggins
Starseaside Childrens Orphanage		Social Housing		26	Northern		0	Durban CBD East
Strathdon		Social Housing		32	Southern		66	Durban CBD West
Table Tennis Building		Social Housing		28	Northern		300	Durban CBD West
Tabora		Social Housing		32	Southern		43	Durban CBD West
Valley View		Social Housing		65	Southern		157	Hillary
Weltvrede		Social Housing		32	Southern		31	Durban CBD West
West Point Lodge		Social Housing - TO BE CONFIRMED		28	Southern		0	Durban CBD West
Westrich		Social Housing	Complete	37	Northern	Approved	99	Newlands West - Open Space

LIST OF SPECIAL HOUSING PROJECTS

PRJNAME	PRJTYPE	STATUS	WARDS	REGIONS	SUBSIDIES	YIELD	PLANUNITS
The Ark	Other	Complete	32	Southern	Approved	900	Durban CBD West
Ekusizaneni Childrens Home	Other		41	Northern		120	Kwamashu K
Verulum Old Age Home	Other		60	Northern		64	Verulam West
Cato Manor Aids Housing	Other		29	Southern		12	Chesterville
Community Family care homes for aids Orph	Other	Complete	29	Southern	Approved	16	Chesterville

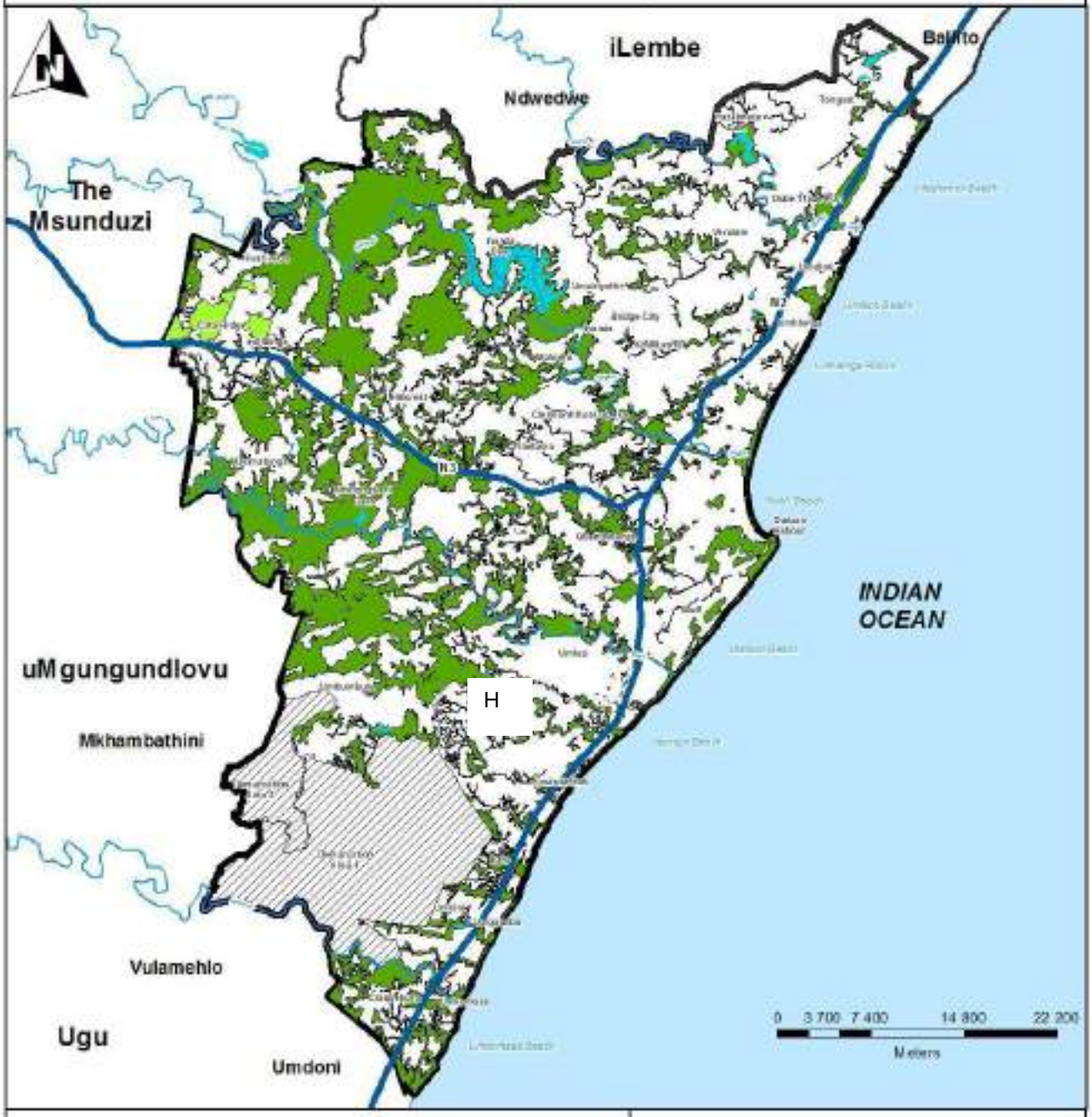
ANNEXURE 14: RELATED MAPS

LIST OF MAPS

a) ENVIRONMENTAL MAP
b) COASTAL, TOURISM, SPORTS & RECREATIONAL
c) EXISTING LAND USE
d) ECONOMIC NODES & INVESTMENT OPPORTUNITIES
e) DENSIFICATION CORRIDORS & NODES
f) ROADS & RAILWAY MAP
g) PROPOSED AGRICULTURE MAP
h) PROPOSED LAND USE

SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017

Environment Map



Scale: 1:300 000

Legend

- Ethekwini Municipal Boundary
- National Roads
- Major Rivers
- Dams
- DMOSS
- Open Space / Conservation
- Demarcation Area

Prepared For:

STRATEGIC SPATIAL PLANNING BRANCH
DEVELOPMENT PLANNING DEPARTMENT

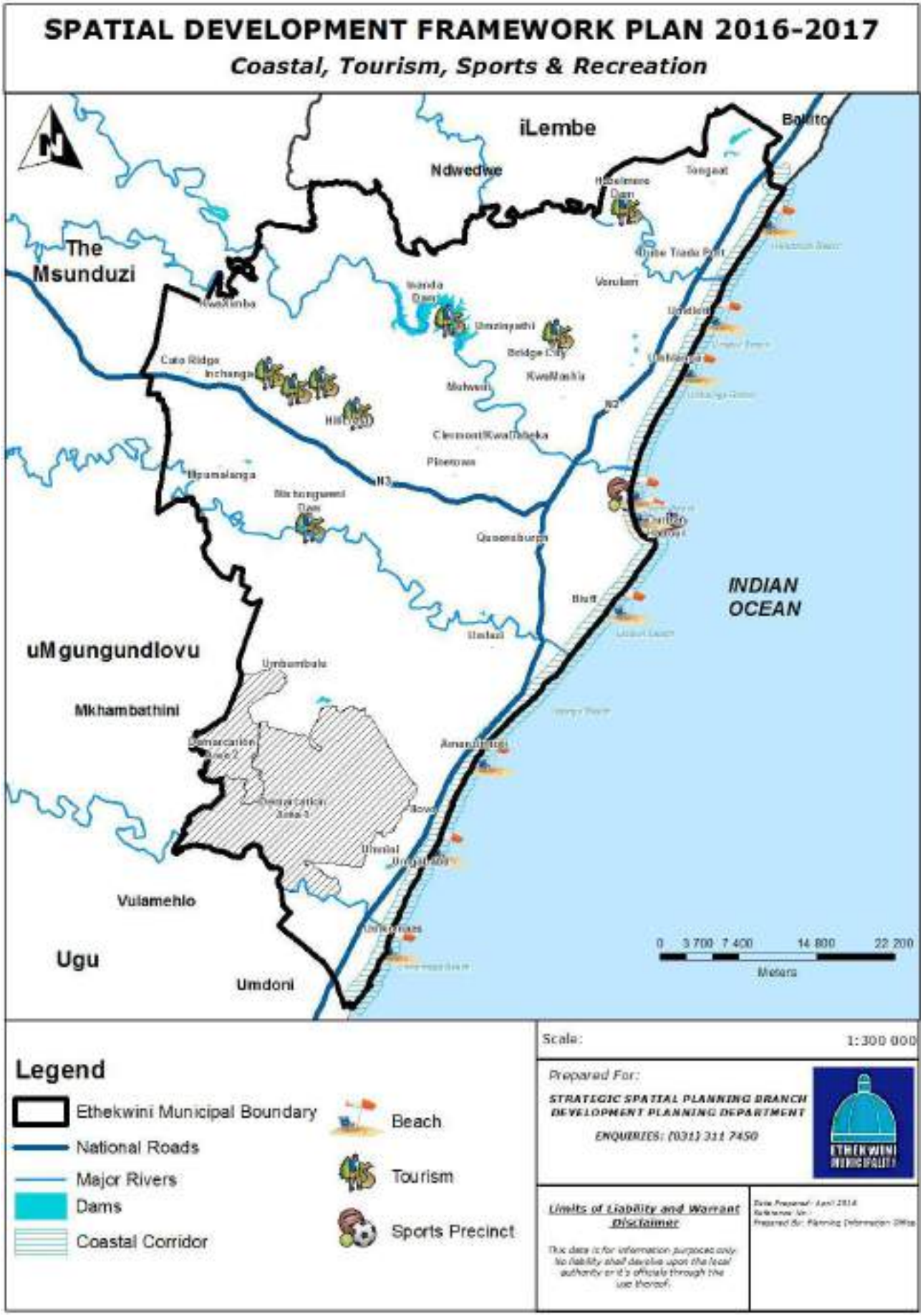
ENQUIRIES: (031) 311 7450

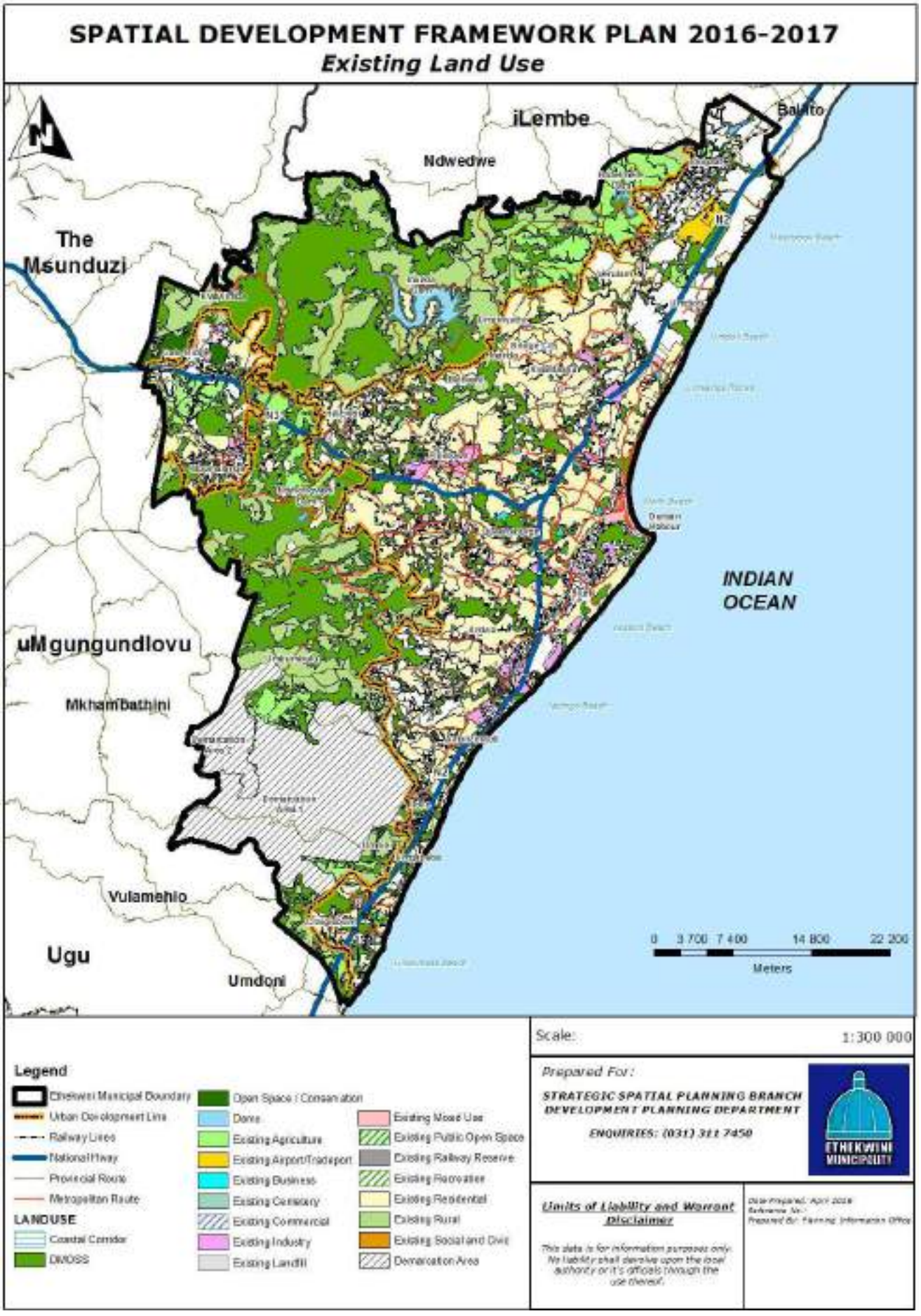
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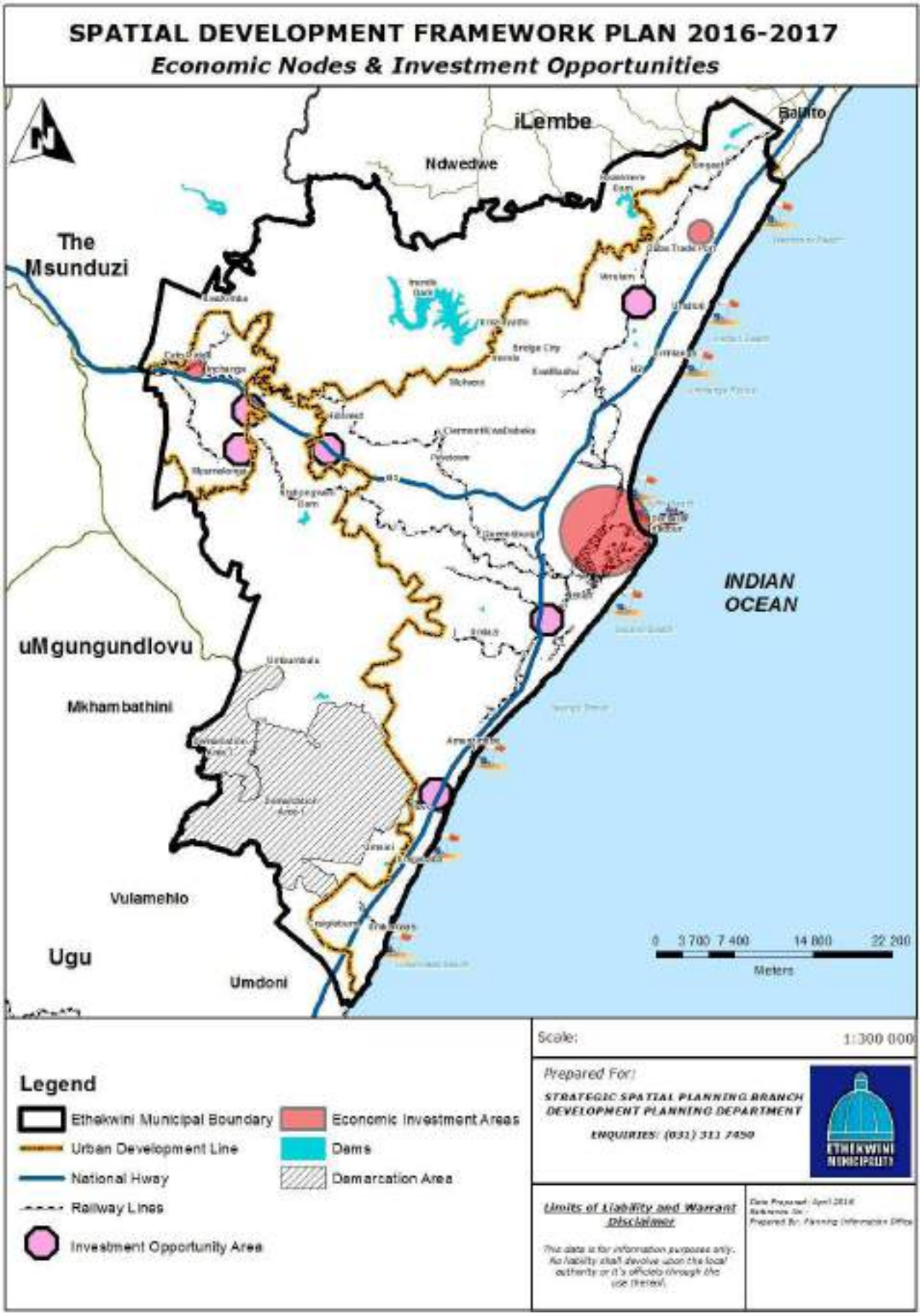
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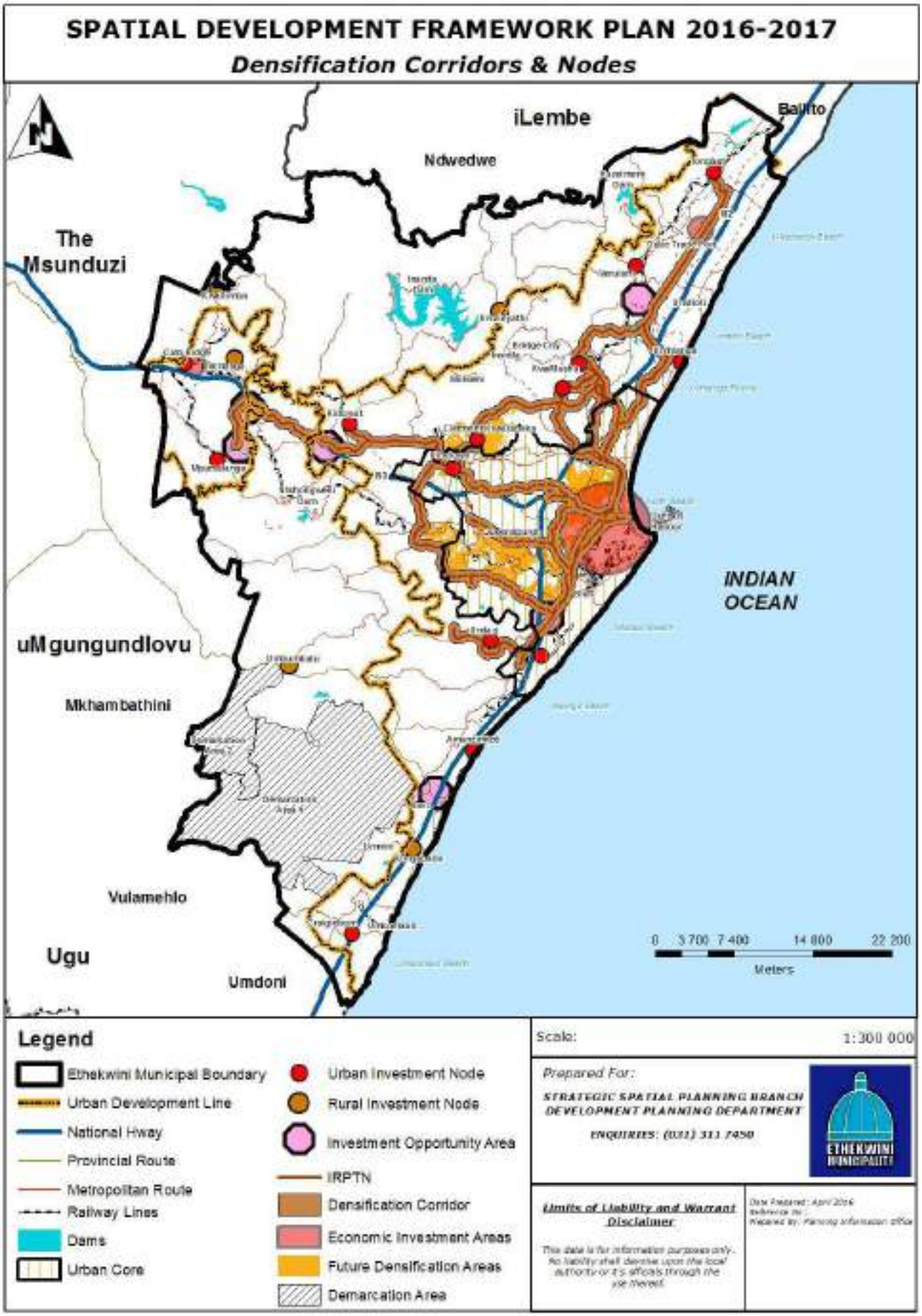
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Date Prepared: April 2016
Reference No.:
Prepared By: Planning Information Office


SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017
Coastal, Tourism, Sports & Recreation
iLembe
Ndwedwe
The Msunduzi
uMgungundlovu
Mkhambathini
Vulamehlo
Ugu
Umdoni
INDIAN OCEAN
Ethekwini Municipal Boundary
National Roads
Major Rivers
Dams
Coastal Corridor
Beach
Tourism
Sports Precinct
Scale: 1:300 000
Prepared For:
STRATEGIC SPATIAL PLANNING BRANCH
DEVELOPMENT PLANNING DEPARTMENT
ENQUIRIES: (031) 311 7450
Limits of Liability and Warrant Disclaimer

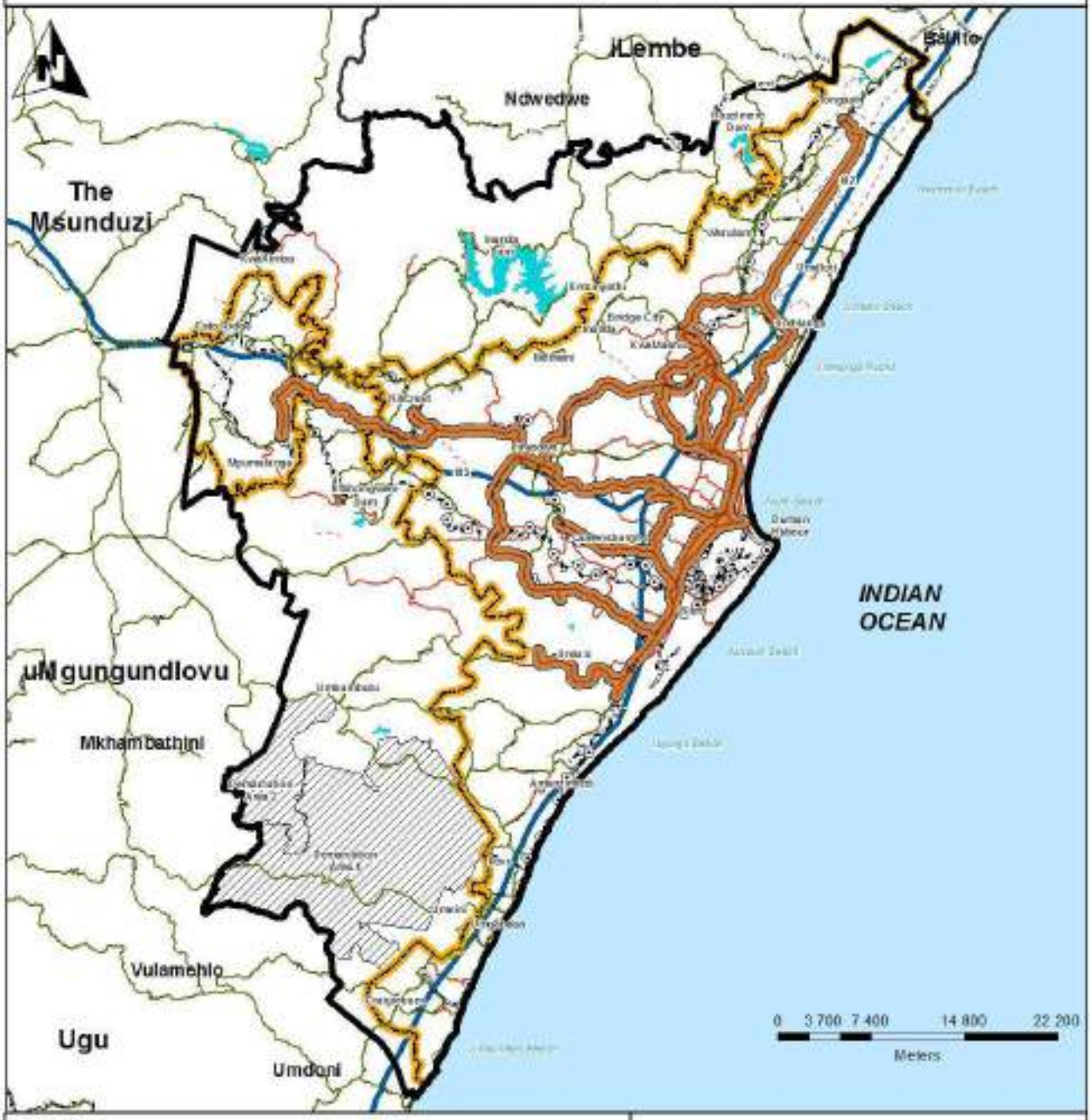

SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017
Existing Land Use
iLembe
Ndwedwe
Ballito
The Msunduzi
INDIAN OCEAN
uMgungundlovu
Mkhambathini
Vulamehlo
Ugu
Umdoni
0 3 700 7 400 14 800 22 200
Meters
Legend
eThekwini Municipal Boundary
Urban Development Line
Railway Lines
National Hway
Provincial Route
Metropolitan Route
LANDUSE
Coastal Corridor
DMOSS
Open Space / Conservation
Dams
Existing Agriculture
Existing Airport/Tradeport
Existing Business
Existing Cemetery
Existing Commercial
Existing Industry
Existing Landfill
Existing Mixed Use
Existing Public Open Space
Existing Railway Reserve
Existing Recreation
Existing Residential
Existing Rural
Existing Social and Civic
Demarcation Area
Scale: 1:300 000
Prepared For:
STRATEGIC SPATIAL PLANNING BRANCH
DEVELOPMENT PLANNING DEPARTMENT
ENQUIRIES: (031) 311 7450
ETHEKWINI MUNICIPALITY
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SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017
Economic Nodes & Investment Opportunities
iLembe
Ndwedwe
The Msunduzi
uMgungundlovu
Mkhambathini
Vulamehlo
Ugu
Umdoni
INDIAN OCEAN
0 3 700 7 400 14 800 22 200
Meters
Legend
Ethekwini Municipal Boundary
Urban Development Line
National Hway
Railway Lines
Investment Opportunity Area
Economic Investment Areas
Dams
Demarcation Area
Scale: 1:300 000
Prepared For:
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DEVELOPMENT PLANNING DEPARTMENT
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SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017
Densification Corridors & Nodes
iLembe
Ndwedwe
Ballito
The Msunduzi
INDIAN OCEAN
uMgungundlovu
Mkhambathini
Vulamehlo
Ugu
Umdoni
0 3 700 7 400 14 800 22 200
Meters
Legend
Ethekwini Municipal Boundary
Urban Development Line
National Hway
Provincial Route
Metropolitan Route
Railway Lines
Dams
Urban Core
Urban Investment Node
Rural Investment Node
Investment Opportunity Area
IRPTN
Densification Corridor
Economic Investment Areas
Future Densification Areas
Demarcation Area
Scale: 1:300 000
Prepared For:
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DEVELOPMENT PLANNING DEPARTMENT
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SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017

Roads & Railway Map



Legend

- Ethekwini Municipal Boundary
- Urban Development Line
- IRPTN
- IRPTN Corridor
- National Hway
- Provincial Roads
- Metropolitan Route
- Proposed Roads
- Railway Stations
- Railway Lines
- Dams
- Demarcation Area

Scale: 1:300 000

Prepared For:

STRATEGIC SPATIAL PLANNING BRANCH
DEVELOPMENT PLANNING DEPARTMENT

ENQUIRIES: (031) 311 7450

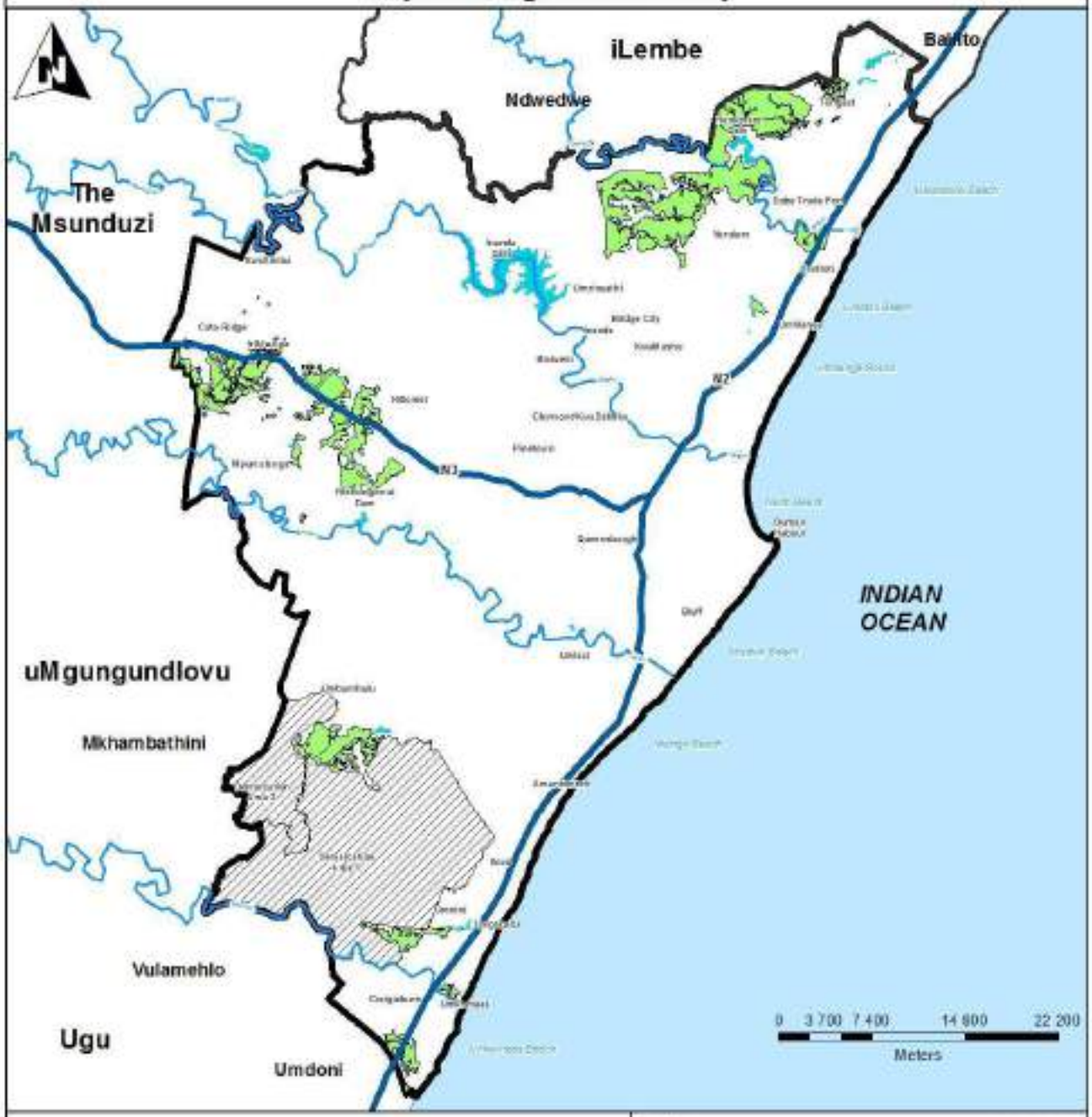
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SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017

Proposed Agriculture Map



Scale: 1:300 000

Prepared For:

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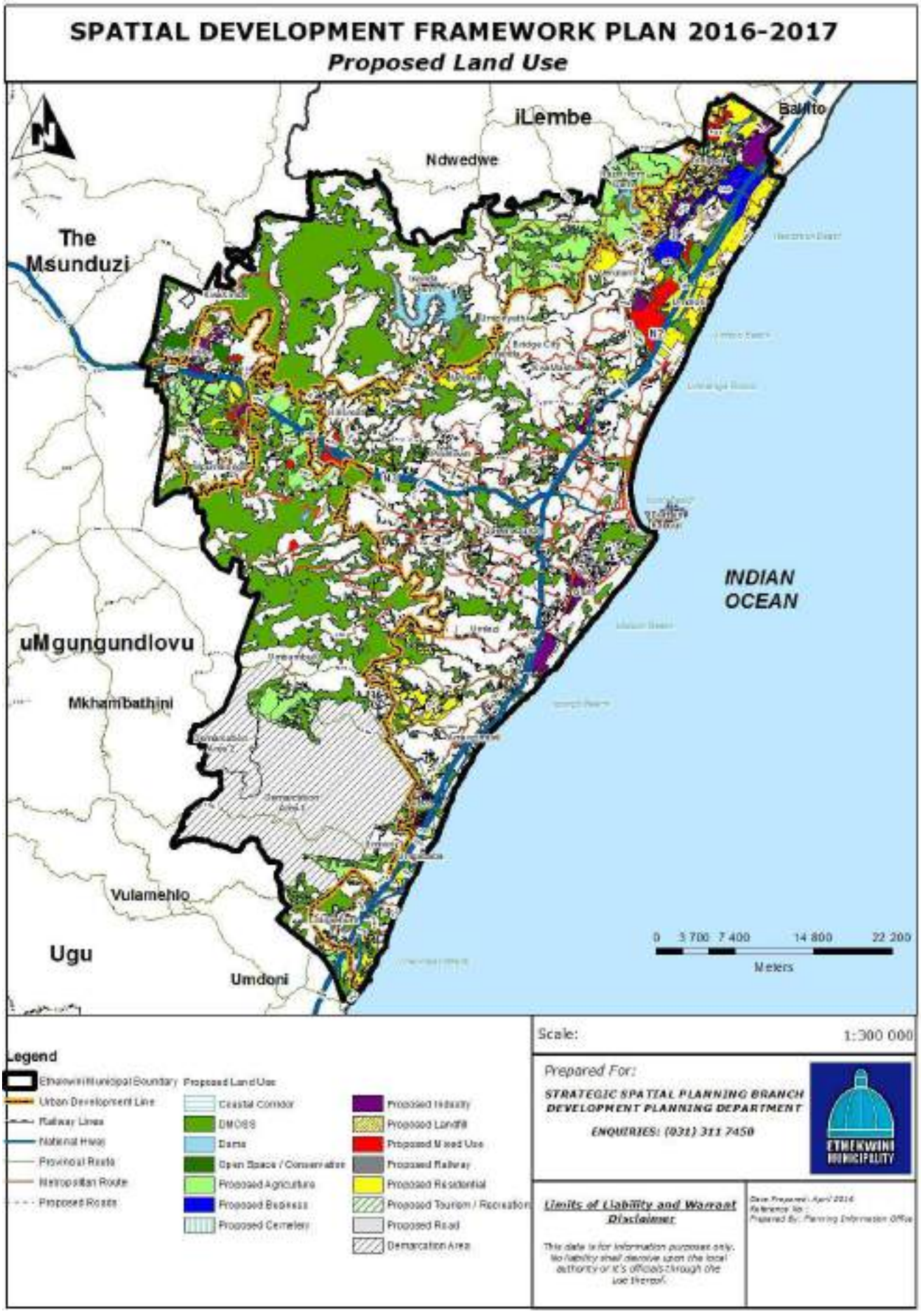
Legend

- Ethekwini Municipal Boundary
- National Roads
- Major Rivers
- Dams
- Proposed Agriculture
- Demarcation Area

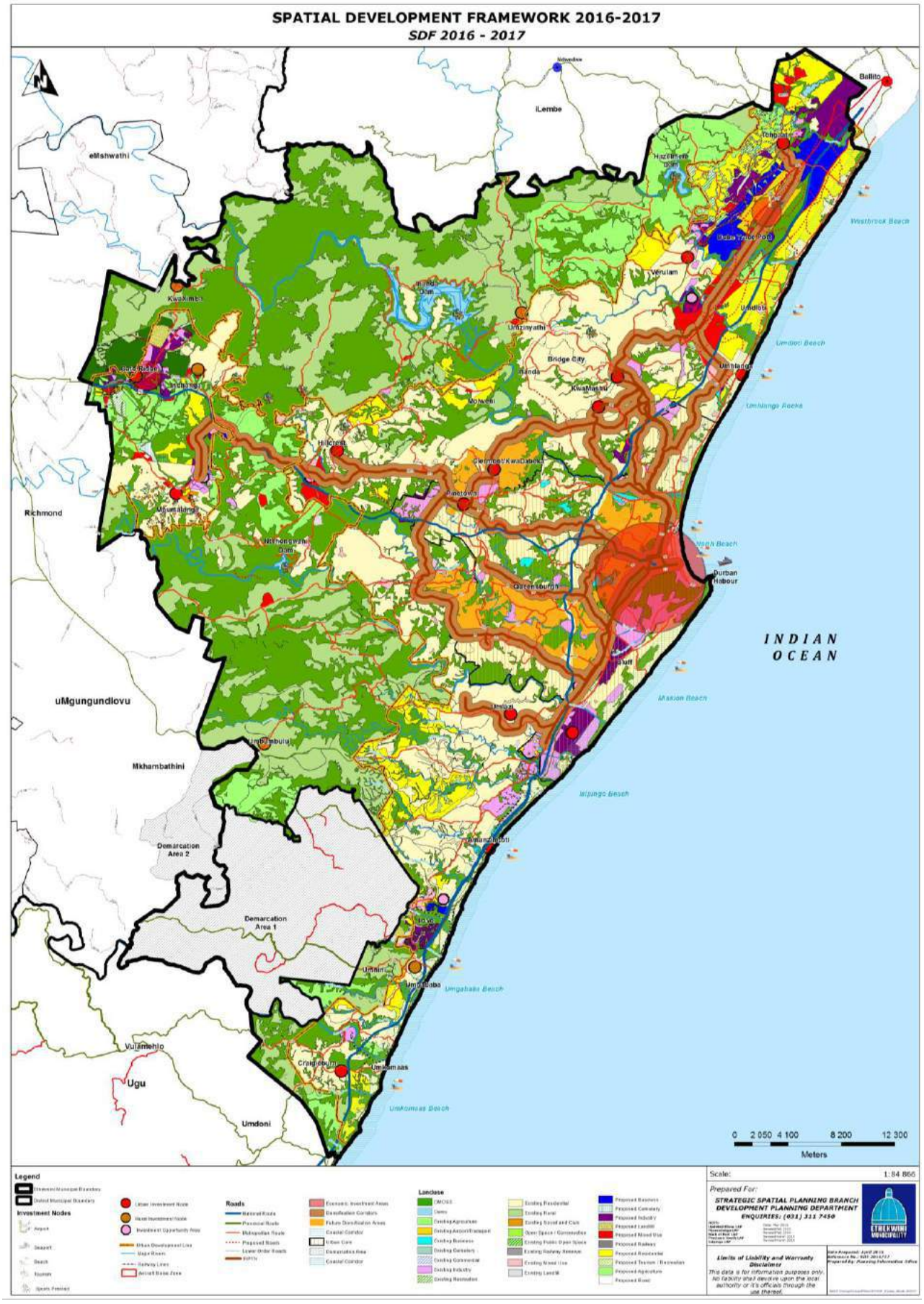
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Date Prepared: April 2016
Reference No.:
Prepared By: Planning Information Office


SPATIAL DEVELOPMENT FRAMEWORK PLAN 2016-2017
Proposed Land Use
iLembe
Ndwedwe
Ballito
The Msunduzi
INDIAN OCEAN
uMgungundlovu
Mkhambathini
Vulamehlo
Ugu
Umdoni
0 3 700 7 400 14 800 22 200
Meters
Legend
eThekwini Municipal Boundary
Urban Development Line
Railway Lines
National Road
Provincial Roads
Metropolitan Route
Proposed Roads
Proposed Land Use
Coastal Corridor
DMOSS
Dams
Open Space / Conservation
Proposed Agriculture
Proposed Business
Proposed Cemetery
Proposed Industry
Proposed Landfill
Proposed Mixed Use
Proposed Railway
Proposed Residential
Proposed Tourism / Recreation
Proposed Road
Demarcation Area
Scale:
1:300 000
Prepared For:
STRATEGIC SPATIAL PLANNING BRANCH
DEVELOPMENT PLANNING DEPARTMENT
ENQUIRIES: (031) 311 7450
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ANNEXURE 15: SPATIAL DEVELOPMENT FRAMEWORK 2016/2017


SPATIAL DEVELOPMENT FRAMEWORK 2016-2017
SDF 2016 - 2017
eMshwathi
iLembe
Ballito
Westbrook Beach
Umdloti Beach
Umhlanga
Umhlanga Rocks
Durban Harbour
INDIAN OCEAN
Richmond
uMgungundlovu
Mkhambathini
Demarcation Area 2
Demarcation Area 1
Vulamehlo
Ugu
Umdoni
Scottburgh
Umkomaas Beach
Umgababa Beach
Amanzimtoti
Queensburgh
Pinetown
Bridge City
Kwamashu
Verulam
Kwakhimba
Hillcrest
Camperdown/KwaDabeka
Mpumalanga
Umbumbulu
Umlazi
Isipingo Beach
Marion Beach
0 2 050 4 100 8 200 12 300
Meters
Legend
Investment Nodes
Roads
Landuse
Scale: 1:84 866
Prepared For:
STRATEGIC SPATIAL PLANNING BRANCH
DEVELOPMENT PLANNING DEPARTMENT
ENQUIRIES: (031) 311 7450
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